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Ms. Erin Allen ABB Environmental Services Inc. 1536 Kingsley Avenue, Suite #127 Orange Park, Florida 32073

Subject:

Site Activities Report, Potential Source of Contamination 42

Final Report

Naval Air Station (NAS) Jacksonville, Jacksonville, Florida

Contract No. #N62467-89-D-0317/076

Dear Ms. Allen:

ABB Environmental Services Inc. did not receive any comments regarding the Site Activities Final Draft Report. The document was issued in June 1997 as a Final Draft, but should be considered Final, as no modifications will be made to the final draft report.

Should you have questions pertaining to this document, please contact me at (904) 269-7012, ext. 111.

Respectfully submitted,

ABB ENVIRONMENTAL SERVICES INC.

Phylissa S. Miller Installation Manager

cossa ¿ A. Robinson, Code 18511

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SITE ACTIVITIES REPORT POTENTIAL SOURCE OF CONTAMINATION 42

NAVAL AIR STATION JACKSONVILLE JACKSONVILLE, FLORIDA

Unit Identification Code: N00207

Contract No.: N62467-89-D-0317/076

Prepared by:

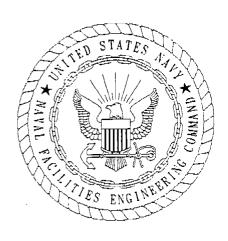
ABB Environmental Services, Inc. 2590 Executive Center Circle, East Tallahassee, Florida 32301

Prepared for:

Department of the Navy, Southern Division Naval Facilities Engineering Command 2155 Eagle Drive North Charleston, South Carolina 29418

Anthony Robinson, Code 18511, Engineer in Charge

June 1997



CERTIFICATION OF TECHNICAL DATA CONFORMITY (MAY 1987)

The Contractor, ABB Environmental Services, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/076 are complete and accurate and comply with all requirements of this contract.

DATE: _____ June 17, 1997

NAME AND TITLE OF CERTIFYING OFFICIAL: Phylissa S. Miller
Task Order Manager

NAME AND TITLE OF CERTIFYING OFFICIAL: Donald F. Haumann, P.E. Project Technical Lead

(DFAR 252.227-7036)

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Naval Air Station Jacksonville
Jacksonville, Florida

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GLOSSARY

ABB-ES

ABB Environmental Services, Inc.

ASTM

American Society for Testing and Materials

FED

Facilities and Environmental Department

FOTW

federally owned treatment works

IRA IROD interim remedial action
Interim Record of Decision

mg/ℓ

milligrams per liter

NAS

Naval Air Station

OU

operable unit

PSC

potential source of contamination

psi

pounds per square inch

RAC

remedial action contractor

RCRA

Resource Conservation and Recovery Act resident officer in charge of construction

ROICC

SOUTHNAV-

FACENGCOM

Southern Division, Naval Facilities Engineering Command

TCLP

toxicity characteristic leaching procedure

USEPA

U.S. Environmental Protection Agency

yd³

cubic yard

SITE ACTIVITIES REPORT POTENTIAL SOURCE OF CONTAMINATION 42

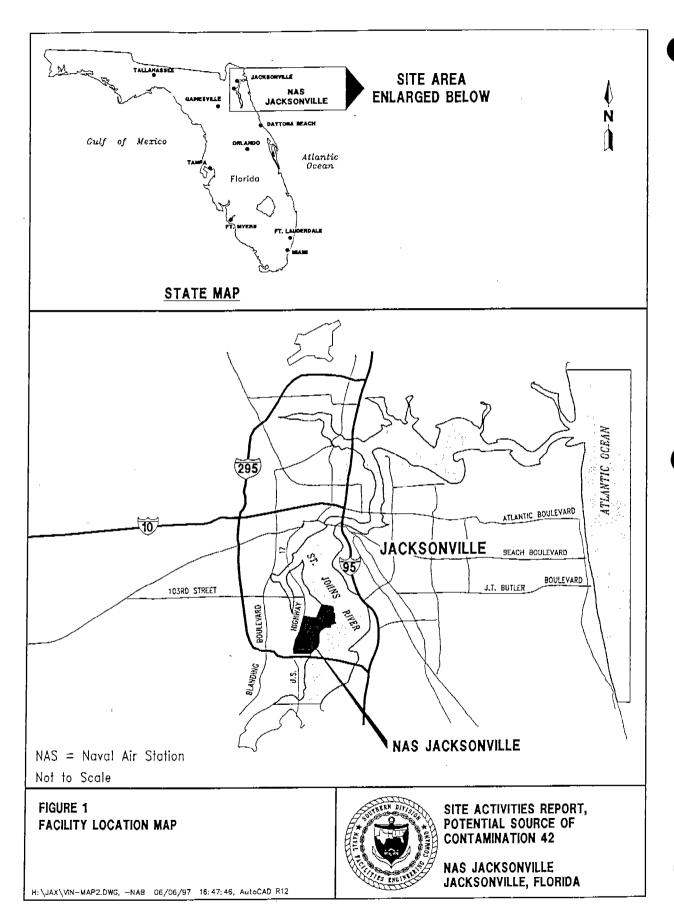
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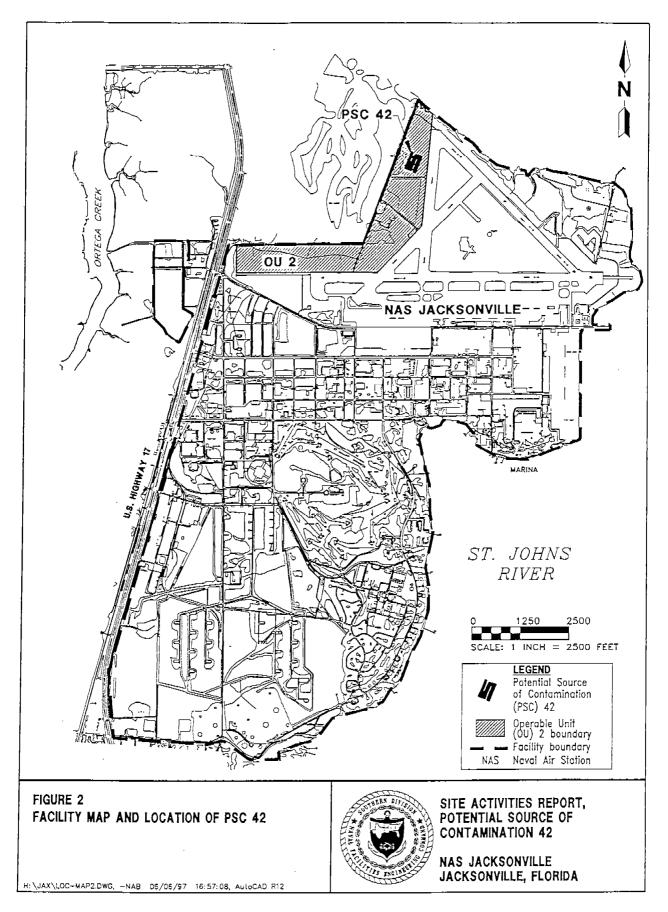
ABB Environmental Services, Inc. (ABB-ES) has been contracted by the Department of the Navy, Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) to prepare a Site Activities Report for Potential Source of Contamination (PSC) 42. PSC 42 is located on the Naval Air Station (NAS) Jacksonville in Jacksonville, Florida (Figure 1) within Operable Unit (OU) 2 (Figure 2). The U.S. Environmental Protection Agency (USEPA) classified PSC 42, formerly a polishing pond for wastewater treatment plant effluent, as a surface impoundment to treat Resource Conservation and Recovery Act (RCRA) listed hazardous wastes F006 and F019 (i.e., wastewater treatment sludges from electroplating operations and the chemical conversion coating of aluminum, respectively). An interim remedial action (IRA) was implemented at PSC 42 to solidify and stabilize contaminated sludge in the pond. The purpose of the IRA for PSC 42 was to lower the risk of potential future exposure to humans and the environment by reducing the leachability of contaminated media at PSC 42 to groundwater, and to close the pond in accordance with RCRA closure requirements. The preferred treatment technology for the polishing pond sludge, *in situ* stabilization, is detailed in the Interim Record of Decision (IROD), PSC 42 at Operable Unit 2, Naval Air Station Jacksonville, Florida (ABB-ES 1995b).

ABB-ES, the Engineer-of-Record for this project, was under contract by SOUTHNAVFACENGCOM to provide engineering oversight and technical support during implementation of the IRA. Responsibilities included daily site visits followed by daily reports submitted to the NAS Jacksonville Resident Officer in Charge of Construction (ROICC) (Appendix A). In addition to field oversight and technical support, ABB-ES attended weekly Quality Control meetings with representatives from the remedial action contractor (RAC) - Bechtel Environmental, Inc., the ROICC, and the NAS Jacksonville Facilities and Environmental Department (FED) to discuss progress of the IRA and assist in resolution of outstanding issues.

Remedial construction activities at PSC 42 began in March 1996. Stabilization began May 10, 1996, and was substantially complete on February 27, 1997. Remedial work at PSC 42 was delayed from approximately June 13 to August 12 because the RAC was assigned to perform a time-critical response action elsewhere on NAS Jacksonville. During the implementation phase, additional contaminated soils from the Building 101 foundation excavation and PSCs 3 and 4 were added to the stabilized mix. Previously stabilized materials from PSC 41 were deposited on top of stabilized cells at PSC 42. Contaminant sources and types for these materials were the same as those identified above (F006 and F019). A total of 3,837 cubic yards (yd³) of additional soils (817 cubic yards from Building 101; 20 yd³ from PSCs 3 and 4; and 3,000 yd³ from PSC 41) were brought to PSC 42 and added to the stabilized area. An additional 728 yd³ of concrete, excavated from the Building 101 area, were added to the stabilized cell areas.

A final site walkover was attended by ABB-ES, the RAC, ROICC, and FED on April 15, 1997. No outstanding issues or activities were identified by the parties in attendance. An RCRA closure report for PSC 42 will be prepared by ABB-ES after receipt of the Final Construction Completion Report prepared by the RAC.





2.0 REMEDIAL OBJECTIVES

Five inorganic elements (cadmium, chromium, lead, nickel, silver) that were present in the sludge at PSC 42 were identified in the IROD as the contaminants of concern for the stabilization process. The primary cleanup objectives for the solidification/stabilization process are listed as follows:

• Toxicity Characteristic Leaching Procedure (TCLP) extract concentrations at or below the following concentrations for the five metals:

Cadmium (Cd)	0.19 milligrams per liter (mg/ ℓ)
Chromium (Cr)	0.86 mg/l
Lead (Pb)	0.37 mg/t
Nickel (Ni)	5.00 mg/t
Silver (Ag)	0.30 mg/e

• Unconfined compressive strength of the stabilized material to be 30 pounds per square inch (psi) after 14 days of wet curing.

3.0 STABILIZATION

3.1 STABILIZATION PROCEDURE

The polishing pond was conceptually divided into sequential cells with approximate dimensions of 40 feet (N-S) x 100 feet (E-W) for stabilization. Initially, water structures provided by Reef Industries were used for division between each of the identified cells (42 total). These structures consisted of two polyethylene inner tubes encased by a geotextile outer tube. After placement of the uninflated water structure across the approximate 100-foot width of each pond finger (three fingers total), the two inner structures were filled with pond water, causing them to conform to the bottom of the pond, thereby creating a dam between adjacent cells. Width of the inflated structures was approximately 12 to 15 feet. Problems were encountered with use of the water structures, including bursting and rolling. After approximately nine cells had been stabilized, the approach was modified to allow water structures or earthen dikes to segregate larger portions of the pond at one time. Larger areas were dewatered as a whole unit. Within these areas, physical barriers were not provided nor specifically marked between the conceptually individual cells; however, stabilization continued to be performed in the originally sized cell areas approximating 40 feet x 100 feet, as shown in the Appendix B map.

Established cells or working units of multiple cells were dewatered, prior to stabilization, by pumping water from the cell(s) to unstabilized portions of the pond. Overall water level in the pond was controlled by pumping excess water into two 50,000-gallon holding tanks, as necessary. Water in the holding tanks was analyzed for criteria established by the Navy, to allow discharge to the federally owned treatment works (FOTW). A mobile filtration and ion-exchange type water treatment plant, capable of treating up to 50 gallons per minute, was staged on site to be used if the pond water failed to meet discharge criteria. The treatment skid was tested on November 6, 1996, by treating 1,400 gallons of very turbid pond water. Pond water was sampled before and after treatment. Analytical results confirmed the treatment unit was capable of treating the pond water to meet discharge requirements for disposal to the FOTW. Throughout the duration of the project, high pH was the only discharge parameter that untreated pond water occasionally exceeded. This was due primarily to the

basic (high pH) nature of the concrete mix, prior to stabilization. In those cases, hydrochloric acid was mixed with water in the holding tanks until the pH reached an acceptable level (pH 5.5-9.5) for discharge to the FOTW.

Stabilization of a dewatered cell was accomplished using a hydro-injector process. A slurry mix composed of Portland Type I cement mixed with pond water was pumped from a batch mixing unit to a mixing rake with four mixing/jetting (injector) tines. The slurry feed and mixing unit was attached to the boom of a Caterpillar 235 trackhoe (Bechtel, 1996). Slurry mix was raked into the dewatered sediments and sludge, penetrating 18 inches into native soil underlying the sediments and along the sides of the polishing pond. The required overlap with the previously stabilized (only partially cured) and adjacent cell was 2 feet. The density of the slurry mix was generally 14-15 pounds per gallon and the pumping rate was 3 barrels per minute (42 gallons per barrel). Approximately 110-120 tons of Portland cement were used in the stabilization of each cell in the polishing pond.

Note: The volume of cement used to stabilize a cell was dependent on the stabilization thickness (sludge depth plus 18 inches of adjacent and underlying native soil) and the density of the material to be stabilized. After a cell was dewatered, a sample of sludge and underlying sediment were mixed with the injector tines, and a sample of the mixture was collected for field determination of the mixture density. The operators of the cement slurry pump used tables developed by ENRECO, the manufacturer of the stabilization equipment, to determine proper mixing times for each 180-square-foot area of stabilization in a cell. The 180-square-foot area was based on a 30-foot reach of the trackhoe arm and the 6-foot-wide span of the metal backbrace to which four injector tines were welded (mixing rake). Mixing times provided in the tables were based on stabilization depth, density of the sludge/sediment mixture, and density of the cement slurry. A sample of mixed sludge/sediment was collected once in each cell to determine density. During stabilization, density of the cement slurry was tested periodically at the batch mixing unit. Mixing times for each 180-square-foot area were adjusted to reflect changes in the slurry density.

As stabilization progressed and acceptable analytical results were received on the previously stabilized cells, the RAC began to backfill over the acceptably stabilized material with fill derived from the adjacent dikes and the excavation of a retention pond in the Timuquana Country Club, adjacent to NAS Jacksonville. The backfill was placed in a maximum of 12-inch compacted lifts. Compaction was required to meet 85 percent maximum dry density. Compaction tests were performed using a nuclear densitometer in accordance with American Society for Testing and Materials (ASTM) 2922-91, at a frequency of one test every 250 yd³, but not less than one test per lift. The final grade after completion of the IRA and addition of the backfill was 1-1.5 percent from center to edge of the project site. Once completed, the final cover was hydroseeded with a mixture of local grasses to provide erosion and runoff control.

3.2 INCORPORATION OF OTHER MATERIALS IN PSC 42

During the course of remediation at PSC 42, contaminated material from other locations on NAS Jacksonville were brought to the polishing pond and incorporated in the stabilization process. Approximately 817 yd³ of soil were brought to PSC 42 from a new foundation excavation at Building 101, an old electroplating shop. In addition, approximately 20 yd³ of dried sludge were added. The sludge was taken from surface layers and piles identified at PSC 3 and PSC 4, the former wastewater treatment plant sludge disposal areas, both within OU 2. The soils from Building 101 and PSCs 3 and

4 were spread in dewatered cells and incorporated in the stabilization process for those cells. The soils from Building 101, PSC 3, and PSC 4 were contaminated with RCRA-listed hazardous wastes having the same waste codes and source (F006 and F019) as the sludge at PSC 42.

In addition to the soil from Building 101, approximately 728 yd³ of excavated concrete (also from Building 101) were brought to PSC 42. The concrete was pressure washed, placed on top of stabilized cells, and covered with backfill.

As part of the IRA for PSC 42, approximately 3,000 yd³ of stabilized and solidified sludge material that were excavated from PSC 41 (also within OU 2) were brought to PSC 42 and spread on top of stabilized cells. The solidified material consisted of residual sludges and native soil overcuts from PSC 41 (domestic wastewater sludge drying beds) and PSC 43 (industrial wastewater sludge drying beds), which were excavated and stabilized on site in 1995. The stabilized material from both PSCs was temporarily placed in the PSC 41 excavation. The PSC 41 and PSC 43 sludges had been classified with the same RCRA-listed waste codes as those in PSC 42 and were originally derived from the same source. Clean backfill was placed on top of the PSC 41 material after it was deposited at PSC 42. PSCs 41 and 43 were part of the same wastewater treatment system as the polishing pond. It should be noted that the RCRA Closure report for PSC 43 has been submitted to the Florida Department of Environmental Protection and is awaiting approval. Preparation of the PSC 41 RCRA Closure report is currently in progress.

Cells that had offsite materials either backfilled over them or incorporated in the stabilization process are identified on the map of cell stabilization/solidification in Appendix B and in Table 1. Minor discrepancies between field notes taken by ABB-ES and the RAC were noted, as indicated in Table 1. Disparities were minor and may be attributed to estimation differences (for backfilled cells) because cell boundaries were not surveyed and were somewhat difficult to discern once stabilized.

4.0 SAMPLING PROCEDURE

The sampling frequency for PSC 42 was based on stabilized cell volumes of approximately 500 yd³. For each 500 yd³ of stabilized material, one composite strength sample (unconfined compressive strength) and one composite TCLP sample (Cd, Cr, Pb, Ni, Ag) were to be taken. Some cells, where thick sludge layers were encountered, required the stabilized volume to exceed 500 yd³, so two composite samples each for TCLP and unconfined compressive strength were collected. In these cases, the cells were typically divided into halves denoted 'A' and 'B' or 'west' and 'east' for sampling purposes. A total of 42 cells was stabilized in the polishing pond. The numbering sequence for cells was modified during the course of the remediation. Areas that had water structures over them prior to stabilization were initially given the same number as the preceding cell, with an "A" designation to differentiate them, e.g., cell 1A was the location of the water structure between cells 1 and 2. After cell 7 was completed, the RAC decided to number cells sequentially. The previously stabilized cells 1, 1A, 2, 2A, 3, 3A, 4, 4A, 5, 6, and 7 were renumbered 1 through 11, respectively. For the remainder of the polishing pond, stabilized cells were numbered sequentially 12 through 42 (Appendix B).

4.1 UNCONFINED COMPRESSIVE STRENGTH

To ensure compliance with design criteria developed for the IRA, samples were collected from each stabilized cell and analyzed for unconfined compressive strength (ASTM 2166). Strength samples

Table 1 Placement of Off-Site Materials in Potential Source of Contamination 42

Site Activities Report Potential Source of Contamination 42 Naval Air Station Jacksonville Jacksonville, Florida

Off-Site Material	Cell Numbers	
	ABB-ES Field Notes	RAC Field Notes
PSC 41 - Solidified/stabilized material: used as backfill.	8 to 10, 15 to 19	10 to 17
PSCs 3 and 4 - Previously dried sludge: stabilized.	25 to 27	25 to 27
Building 101 - Soil: stabilized.	10	10
	11	12
	13	13
	14	14
	18	18
	19	19
	25	25
	26	26
	27	2 7
	29	29
	30	30
	34	34
Building 101 - Concrete: placed on top of stabilized cells.	1 to 7, 27	1 to 5, 27

Cells backfilled with PSC 41 material, as noted on the Appendix B map, are inclusive of the full range of cells identified in ABB-ES's and Bechtel Environmental, Inc.'s, field notes data (i.e., cells 8 - 19 inclusive).

Note: ABB-ES = ABB Environmental Services, Inc.

RAC = remedial action contractor.

PSC = potential source of contamination.

were generally collected on the same day that stabilization occurred, but occasionally were collected the following morning. Three locations were sampled in each cell and combined to form one composite sample. If the stabilized cell overlapped a previously stabilized cell on either side, one of the three samples was generally collected from the overlapped area.

Various sampling techniques for unconfined compressive strength were employed throughout the duration of stabilization. Initially a split-spoon sampler was used to collect samples from a small, flat-bottomed boat. The high viscosity of stabilized material prevented it from flowing into the small opening of the split spoon, making it difficult to retrieve representative samples. Next, plastic split-spoon sleeves were used to collect samples from a boat. The rigid sleeves were pushed to native soil. After reaching the specified depth, a hand was cupped over the open end to create a vacuum in order to hold the sample while the sleeve was lifted. The third technique used to collect samples for this test included use of a backhoe bucket to collect samples from the perimeter of a cell and at the full reach of the backhoe bucket arm. Samples were collected from the bucket using a stainless steel spoon. Adequate samples were eventually obtained using each technique; however, the latter two methods seemed to achieve the most representative samples.

4.2 TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Composite TCLP samples were collected from each stabilized cell and analyzed (USEPA SW846) for compliance with the contaminant concentrations listed in Section 2.0. If a cell overlapped a previously stabilized cell, one sample was generally collected from the overlap area. TCLP samples were collected using a hand auger once a stabilized cell was firm enough to walk on, generally one day following stabilization. Stabilized material was hand augered to the depth of native soil, allowing ABB-ES and the RAC to verify the homogeneity of the stabilized mixture. A small amount of stabilized material was retrieved with a stainless-steel spoon each time the auger bucket was brought to the surface. The vertical composites from each augered hole were collected to represent the full depth of stabilization. Material collected from each sample location in a stabilized cell was mixed together in a stainless-steel bowl to form a composite for analysis.

5.0 SAMPLING RESULTS

5.1 UNCONFINED COMPRESSIVE STRENGTH

Although all cells reached the required compressive strengths by project completion, initial samples taken in cells 4, 7, and 10 failed to reach the design criteria of 30 psi after 14 days. The cells were resampled with a core drill 5-6 weeks later, and the strength of each core sample exceeded 30 psi, thus meeting the design intent. Because appropriate sampling techniques were still under development during the early part of this project, the initial three test failures noted may have been attributed to refinement of procedures. Samples in six other cells did not reach a strength of 30 psi after 14 days of curing, but did meet the design strength after 21 to 30 days, thus meeting the overall design intent for strength of the stabilized mixture. When sampling cell 21 for TCLP (hand auger), unstabilized sludge was encountered in the bottom 12-18 inches at one sampling location. The RAC restabilized a 30 foot x 30 foot area around the TCLP sampling location 4 days later. One sample for unconfined compressive strength was collected in the restabilized area. Strength of the restabilized mixture exceeded 30 psi. Analytical results for unconfined compressive strength are contained in Appendix C.

5.2 TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Analytical data for the TCLP samples from each cell stabilized in PSC 42 were below the contaminant concentrations listed in Section 2.0. TCLP analytical results for cells 1 to 42 are contained in Appendix D. During the break in remediation activities (June 13 to August 12, 1996), a water structure separating stabilized cell 9 from the unstabilized portion of the polishing pond failed, leaving cell 9 submerged by pond water. A water structure installed on the unstabilized cell 8 area remained intact during the delay in work, preventing flooding of stabilized cells 1 through 7. (Cell 8 refers only to the area beneath the water structure). When remedial work resumed and pond water was removed from the stabilized cell area, the top 1 foot of cell 9 was resampled for TCLP in the same way as previously specified to ensure that the standing pond water on cell 9 had not recontaminated the stabilized material. Results indicated that cell 9 had not been recontaminated.

REFERENCES

- ABB Environmental Services, Inc. (ABB-ES). 1995a. Focused Remedial Investigation and Feasibility Study, Potential Sources of Contamination 3 and 42 at Operable Unit 2, Naval Air Station Jacksonville, Jacksonville, Florida. Prepared for Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), North Charleston, South Carolina (April).
- ABB-ES. 1995b. Interim Record of Decision (IROD), Potential Source of Contamination (PSC) 42, Operable Unit 2, Naval Air Station Jacksonville, Jacksonville Florida. Prepared for SOUTH-NAVFACENGCOM, North Charleston, South Carolina (June).
- Bechtel Environmental, Inc. 1996. Interim Remediation Work Plan Serpentine Pond (PSC 42) In-Situ Sludge/Soil Stabilization for Naval Air Station Jacksonville, Florida (February).

APPENDIX A
SITE VISIT FORMS





Date: 3-17-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Don Haumann

Project No.: 8587.41 Weather: light wind,

70 degrees, sunny

BEI: BECON NAVY:

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Continued backfilling of east leg.
- Slurry unit dismantled and removed by ENRECO (water treatment skid still on-site). Concrete which had collected beneath slurry unit being broken up with backhoe and placed on stabilized surface of cell 42 (to be covered with backfill).
- Flushing conveyance piping (from modu-tanks to PWC) with water. Piping will also be flushed with bleach. The above-ground piping will then be removed by BEI.

Sampling/Testing Performed

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-10 (roll 13) Backfilling east leg. Foreground: slurry unit has been removed from site; concrete being broken up with backhoe.

Comments

When modu-tanks were dismantled, liners were pressure-washed, cut up, and placed in roll-off.

Submitted by:

3B Environmental Services, Inc.

Field Engineer

COPIES TO:



Date: 3-13-97

ON-SITE PERSONNEL

ABB-ES Project No.: 8587.41 ABB-ES:

BEI

Weather:

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

Progress of demob. activities was discussed during weekly QC meeting:

- 5 wells to be re-installed: 4 replacement wells, 1 well requested by FED
- 4-inch water line will be disconnected, stubbed,
- Decon. pad will be broken up, placed on stabilized soil and buried
- Slurry equipment to be shipped on 3-17

Sampling/Testing Performed

Rinsate sample taken off decon. pad Wed., March 12

insate sample taken off injectors Wed., March 12

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

3B Environmental Services, Inc.

Field Engineer

COPIES TO:

Project File ROICC

VIS03-13.DOC :3/14/97





Date: 3-11-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Adib Rahounji

Project No.: 8587.41

BEI: Bill Norton, BECON

Weather: 80 degrees, partly sunny

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Backfilling eastern leg of pond
- Both modu-tanks are dismantled

Sampling/Testing Performed

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-8 (roll 13) hauling soil from Timuquana pile, for backfilling east leg

P-9 and P-10 (roll 13) Backfilling east leg

Comments

Compaction testing on backfill scheduled for 3-12.

Submitted by:

3B Environmental Services, Inc.

Field Engineer

COPIES TO:



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ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Norton, Rountree

Weather: 75 degrees

NAVY:

Work Performed / Corresponding Sections of BEI Work Plan

BEI continuing demobilization activities:

- · continued cleaning equipment
- 100-ton tanker that was used to store dry cement was taken off-site

Sampling/Testing Performed

TCLP samples for cells 41 and 42 were collected on 3-04-97

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

During the weekly QC meeting, ABB, BEI, ROICC and FED agreed that a rinsate sample should be collected from the decon. pad concrete before it is dismantled and disposed, as well as one rinsate sample from the CAT 235. The samples should be analyzed by a NEESA certified laboratory for total metals.

Submitted by:

3B Environmental Services, Inc.

rrin Cal

Field Engineer

COPIES TO:



Date: 3-03-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Bill Norton, Tom Rountree, Steve SantaMaria, BECON

Weather:

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

Stabilization re-work: Cells 41 and 42

Sampling/Testing Performed

Cell 42 sampled for strength

eviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-6 (roll 12) Stabilizing cell 42, around inlet pipe

P-7 (roll 12) Stabilizing cell 42

Comments

Submitted by:

B Environmental Services, Inc.

Field Engineer

COPIES TO:



Date: 2-27-97 ON-SITE PERSONNEL	SECTION AND A SECTION OF THE	
ABB-ES ABB-ES:		
Project No.: 8587.41 BEI		
Weather: sunny 85 NAVY:		
degrees OTHER:		
Work Performed / Corresponding Sections of BEI	Work Plan	
Stabilization substantially complete		
Ombinication survivaling Company		
Sampling/Testing Performed	-	
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Submitted by: 3B/Environmental Services: Inc.		Project File
Trun C. allen		ROICC
Field Engineer		



Date: 2-26-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Work Performed / Corresponding Sections of BEI Work Plan

OTHER:

Project No.: 8587.41

BEI: SantaMaria, Norton, Stone, Rountree, Obenauer, BECON

Weather: am: light rain, cloudy; pm:

NAVY:

sunny, 73 degrees

Stabilized eastern 3/4 of cell 41. A gear on the slurry pump sheared, preventing completion of the cell.

Sampling/Testing Performed

Sampled cell 39 for TCLP

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-1(roll 13) Stabilizing cell 41

P-2 (roll 13) Stabilizing cell 41 (stabilized cells 29to 40 in background)

P-3 (roll 13) Backfill over western 2/3 of pond

Comments

BEI used water from Modutank for stabilization, rather than drawing FOTW water from sleuce gate. This was done to try to use up most of the remaining water that was pumped from the pond.

bmitted by:

ABB Environmental Services. Inc.

Field Engineer

COPIES TO:



Date: 2-25-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41 BEI: Norton, Rountree, SantaMaria, BECON

Weather: windy, NAVY: afternoon rain, 55 OTHER

OTHER:

degrees

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized cell 40
- Surveyed surface elevations of stabilized cells 31 to 39, and backfill over western 2/3 of pond

Sampling/Testing Performed

- Sampled cell 38 for TCLP
- Sampled cell 40 for strength

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

bmitted by:

Field Engineer

COPIES TO:



Date: 2-24-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Norton, SantaMaria, Stone, Rountree, Rogers, BECON

Weather: windy,

NAVY:

cloudy, 57 degrees

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized cell 38
- Stabilized cell 39
- Pumped pond water to FOTW

Sampling/Testing Performed

- Sampled cell 38 for strength
- Sampled cell 39 for strength
- Sampled cell 37 for TCLP (sampled by Tom Rountree on 2-21-97)

deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

B Environmental Services, Inc.

Field Engineer

COPIES TO:



Date: 2-20-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: B. Norton, J. Stone, T. Rountree, S. SantaMaria, BECON

Weather: cloudy, 78

NAVY:

degrees

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

Stabilized cell 37

Sampling/Testing Performed

Sampled cell 37 for strength

Sampled cell 36 for TCLP

Sampled west end of cell 35 for TCLP

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Modutank (nearest decon pad) has been dismantled

Riprap has been removed from spillway at SE corner of pond

Submitted by:

3B Environmental Services, Inc.

Field Engineer

COPIES TO:



Date: 02-19-97

ABB-ES



DAILY SITE VISIT Construction Oversight, PSC 42 - Serpentine Pond

ON-SITE PERSONNEL

Project No.: 8587.41 BEI: Steve SantaMaria, Tom Rountree

ABB-ES: Srin Kuchibotla

	Weather: cloudy, 75 NAVY: degrees OTHER:
	Work Performed / Corresponding Sections of BEI Work Plan
	Stabilized Cell 36
	Finished stabilizing cell 35 (western edge)
	Sampling/Testing Performed
	Sampled Cell 35 for TCLP
	Sampled Cell 36 for strength (the composite sample included one location from portion of Cell 35 stabilized today)
ŀ	
	eviations from Work Plan / Reason for Deviation and Documentation of Approval
ĺ	
	Photographs/Video Documentation
	Comments
**	Submitted by: COPIES TO:
	B Environmental Services, Inc. Project File ROICC
1	Tield Engineer



Date: 2-18-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Srin Kuchibotla

Project No.: 8587.41

BEI: Bill Norton, Tom Rountree, BECON, John Stone

Weather: sunny, 70

NAVY:

degrees

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

Stabilized most of Cell 35 (western edge of cell to be stabilized on 2-19)

Sampling/Testing Performed

Sampled cell 35 for strength

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-11 (roll 12) Stablizing cell 35

P-12 (roll 12) Western 2/3 of pond, backfilled

Comments

BEI did not work on 2-17, for President's Day

Submitted by:

3B-Environmental Services, Inc.

Field Engineer

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Plan
ocumentation of Approval
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Date: 02-12-97 ON-SITE PERSONNEL ABB-ES: Srin Kuchibotla Project No.: 8587.41 BEI: Tom Rountree, BECON Weather: NAVY: OTHER:			
Work Performed / Corresponding Sections of BEI	Work Plan		
Equipment repair and maintenance			
Sampling/Testing Performed			
Sampled Cell 34 for TCLP			
Performed compaction tests on lifts 1 and 2 of backfill in middle le	eg .		
-			
			(
Deviations from Work Plan / Reason for Deviation a	ind Documentatio	n of Approval	and the second s
Photographs/Video Documentation			
1 notographs/ video Documentation			
•			
Comments			
Submitted by: 3B Environmental Services, Inc.			COPIES TO: Project File
Field Engineer			ROICC





DAILY SITE VISIT

	Construction Oversight, PSC 42 - Serpentine Pond	
Date: 2-11-97 ABB-ES Project No.: 8587.41 Weather: 60 degrees, cloudy	ON-SITE PERSONNEL ABB-ES: Srin Kuchibotla BEI: Steve SantaMaria, Tom Roumtree, BEI NAVY: OTHER:	
Work Performed / C	orresponding Sections of BEI Work Plan	
Stabilized Cell 34. (Some	Building 101 soil in cell)	
Sampling/Testing Pe	formed	
Sampled Cell 34 for streng	h	
	e and 30 (area stabilized on 2-10-97 for TCLP) Reason for Deviation and Documentation of Approval cocumentation	
Comments		
Submitted by: 3B Environmental Service 2/Un C. Alle	es, Inc. Project File ROICC	

Field Engineer



Date: 2-10-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI. John Stone

Weather: windy,

PET TOTH SMILE

morning rain, 65

NAVY:

morning rain degrees

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- · Finished stabilizing west edge of cells 29 and 30
- Compacted PSC 41 backfill
- Put old injector tines back on CAT 235, as new tines have cracked seal
- · Continued backfilling middle leg of pond

Sampling/Testing Performed

Sampled portion of cell 29 that was stabilized on 2-05-97 for TCLP

Sampled portion of cell 30 that was stabilized on 2-05-97 for TCLP

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

bmitted by:

ABB Environmental Services, Inc.

Field Engineer

COPIES TO:





Date: 2-06-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41 BEI: Norton, SantaMaria, Rountree, Stone, BECON

Weather: windy, NAVY:

sunny, 65 degrees OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Maintenance on CAT 235
- Continued backfilling middle leg of pond with Timuquana soil

Sampling/Testing Performed

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

3B Environmental Services, Inc.

Field Engineer

COPIES TO:





Date: 2-05-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Norton, SantaMaria, Stone, Rountree, BECON, Najmola, John Piccalo

Weather: mostly sunny, 75 degrees

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized most of cells 29 and 30. Building 101 soil was incorporated into these cells. A small area on the west side of the cells has not been stabilized, due to machinery problems.
- Continued backfilling middle leg of pond
- Continued pumping pond water to FOTW

Sampling/Testing Performed

Sampled cell 31 for TCLP

Sampled cells 29 and 30 for strength

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-9 (roll 12) Stabilizing cell 29

P-10 (roll 12) Eastern leg of pond

Comments

Submitted by:

3B Environmental Services, Inc.

Field Engineer

COPIES TO:





Date: 2-04-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Steve SantaMaria, Bill Norton. Tom Rountree, BECON, John Stone

Weather: sunny, 75

NAVY:

degrees

OTHER: Savannah River

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized cell 31
- Continued backfilling middle leg with Timuquana soil
- Began drawing water for stabilization from diversion chamber at southeast corner of site, as little pond water remains. Water flowing through the chamber is channeled to the chlorine contact chamber and discharged into the St. John's River.

Sampling/Testing Performed

Collected strength samples from cell 31

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

BB-Environmental Services, Inc

Field Engineer

COPIES TO:



Date: 2-03-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI; Bill Norton, Tom Rountree, BECON

Weather: sunny, 75

NAVY:

degrees

OTHER: surveyors

Work Performed / Corresponding Sections of BEI Work Plan

- Equipment maintenance on CAT 235 and slurry pump
- Surveyors on site to determine volume of soil needed for final cover

Sampling/Testing Performed

Sampled cell 28 for TCLP

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

BB-Environmental Services, Inc.

Field Engineer

COPIES TO:





Date: 1-30-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon

Project No.: 8587.41

BEI: B. Norton, S. SantaMaria, E. Najmola, T. Rountree, J. Stone, BECON

Weather: cloudy, 55

NAVY: Diane Lancaster, Jane Mears

degrees, windy

OTHER: FDEP

Work Performed / Corresponding Sections of BEI Work Plan

Completed stabilization of cell 28

Continued pumping pond water to FOTW

Sampling/Testing Performed

Collected strength sample from cell 28

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

FDEP visited PSC 42

Submitted by:

BB Environmental Services, Inc.

Field Engineer

COPIES TO:



Date: 1-29-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Bill Norton, Steve SantaMaria, Eddie Najmola, Tom Rountree, BECON

Weather: cloudy,

NAVY:

windy, 60 degrees

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

Began to stabilize cell 28, which is the area that was beneath the clay extension of eastern finger. Problems with water pump of the slurry unit caused stabilization to stop

Continued pumping pond water to FOTW

Sampling/Testing Performed

Sampled cell 32 for TCLP

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-5 (roll 12) Stabilizing cell 28

P-6 (roll 12) Clay soil from extension of eastern finger piled north of cell 28

P-7 (roll 12) Sludge that was pushed out from under clay extension of eastern finger

P-8 (roll 12) Stabilizing cell 28

Comments

BEI will not sample the re-worked area in cell 21 for TCLP. After the cell was initially stabilized, a composite sample for TCLP was collected. The sample was biased, with sludgy material, and the analytical results passed.

Submitted by:

BB-Environmental Services, Inc.

Field Engineer

COPIES TO:





Date: 1-28-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Bill Norton, John Stone, Steve SantaMaría, BECON

Weather: pt. sunny, 72 degrees

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

Stabilized cell 32

· Continued pumping pond water to FOTW

Sampling/Testing Performed

Sampled cell 32 for strength

Sampled cell 33 for TCLP

eviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-4 (roll 12) Stabilizing cell 32

Comments

Submitted by:

BB Environmental Services, Inc.

Field Engineer



Date: 1-27-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Bill Norton Tom Rountree, Steve SantaMaria, BECON

Weather: pt. sunny, 70 degrees

inny, NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized cell 33 (sketch attached)
- Continued pumping pond water to FOTW
- Scraped clay away from extension of eastern finger (Cell 28) in preparation for stabilization

Sampling/Testing Performed

Sampled cell 27 for TCLP

Sampled cell 33 for strength

Attempted to sampled re-worked area in cell 21 for TCLP using backhoe bucket, but material was too hard. BEI plans to use a core drill to sample the re-stabilized area

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

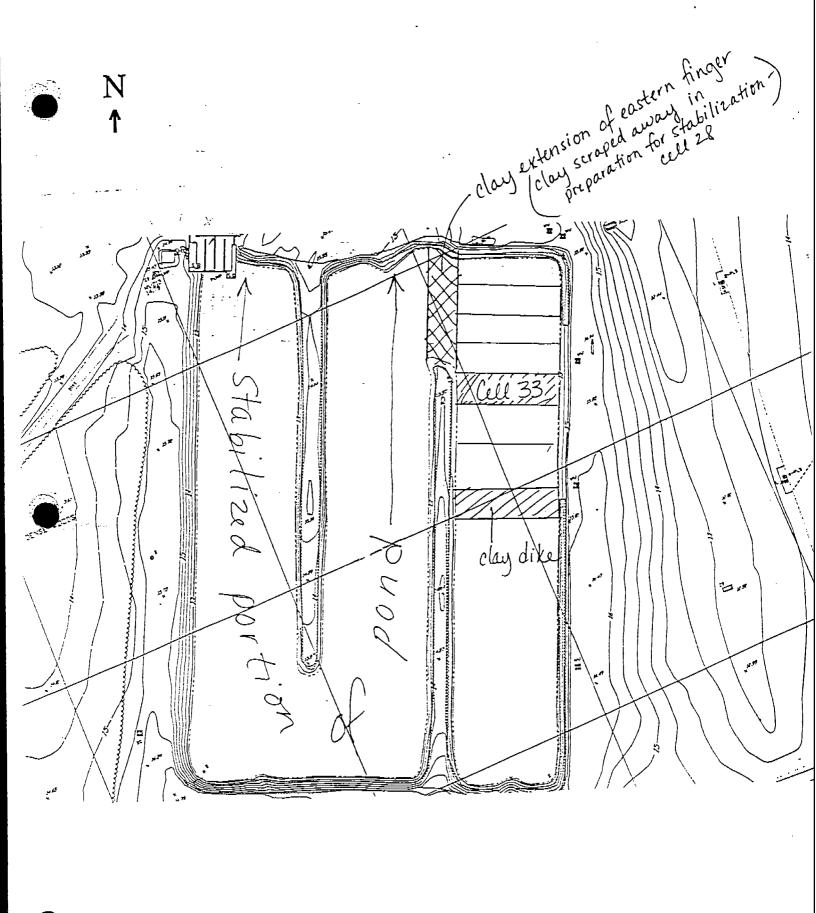
Comments

Submitted by:

BB Environmental Services, Inc.

Field Engineer

COPIES TO:





Date: 1-23-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Steve SantaMaria, Bill Norton, Tom Rountree, John Stone, BECON

Weather: cloudy, 75

NAVY:

degrees

OTHER: John Broumett - PWC

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized cell 27
- · PWC delivered roll-off to site
- Continued pumping pond water to FOTW
- BEI brought more soil from Building 101 to site. Stockpiled the soil at NE end of pond. The soil will be stabilized during week of 1-27.

Sampling/Testing Performed

Collected strength samples from cell 27

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-2 (roll 12) Stabilizing cell 27 (S<N)

P-3 (roll 12) Middle leg of pond, completely stabilized (N<S)

Comments

Submitted by:

BB Environmental Services, Inc.

Field Engineer

COPIES TO:





Date: 1-22-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41 Weather:partly

BEI: Tom Rountree, Bill Norton, BECON

NAVY: sunny, 75 degrees OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Maintenance on slurry pump
- Site maintenance in preparation for FDEP visit

Sampling/Testing Performed

Sampled cell 26 (east side) for TCLP

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

BB Environmental Services, Inc. nu C. allera

Field Engineer

COPIES TO:



Date: 1-21-97 ON-SITE PERSONNEL

ABB-ES ABB-ES: Erin Allen

Project No.: 8587.41 BEI: Bill Norton, Tom Rountree, John Stone, Rod Padgett, Tony Renk, BECON

Weather: Sunny, 65 NAVY: degrees OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

Stabilized eastern 1/3 of cell 26, to finish the cell

Continued backfilling Timuquana soil at south end of west leg

Resumed pumping pond water to FOTW, as turbid samples collected on 1-16-97 met NPDES discharge limits. Public Works requested that BEI add a small amount of chlorine to the pond water prior to discharge to kill some algae in the water.

Sampling/Testing Performed

TCLP samples collected from western 2/3 of cell 26, stabilized on 1-20-97

Strength samples collected from eastern 1/3 of cell 26

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

.BB.Environmental Services, Inc.

COPIES TO:

Project File ROICC

Field Engineer





Date: 1-20-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon

Project No.: 8587.41

BEI: Bill Norton, Rod Padgett, Tom Rountree, John Stone, Hermann Bauer, BECON

Weather: 63 degrees, sunny

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized western 2/3 of cell 26
- Added more Timuquana backfill to south end of west leg of pond
- Dewatered northern half of eastern leg, in preparation for stabilization

Sampling/Testing Performed

Sampled cell 26 for strength

Sampled cell 25A and 25B for TCLP

Attempted to sampled re-stabilized portion of cell 21, but material was too hard to hand auger. BEI will re-attempt hand augering tomorrow, or will propose an alternate method of sampling

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

3B Environmental Services, Inc.

Field Engineer

COPIES TO:



Date: 01-17-97 ON-SITE PERSONNEL

ABB-ES: Erin Allen

Project No.: 8587.41 BEI; Bill Norton, John Stone, BECON

Weather: windy, 40 NAVY: degrees, mostly sunny OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- BEI re-stabilized a 30 foot x 30 foot area at the southwest corner of cell 21, which was not adequately stabilized on 1-13-97.
- Finished building clay dike across center of eastern finger of pond

Sampling/Testing Performed

Sampled re-stabilized area in cell 21 for strength

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-25 (roll 11) Re-stabilizing southwest corner of cell 21 (W<E)

Comments

Submitted by:

BB Environmental Services, Inc.

Field Engineer

Grin C. a

COPIES TO:





Date: 01-16-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Steve SantaMaria, Tom Rountree, Bill Norton, John Stone, Eddie Najmola, BECON

Weather: am: tornado

NAVY:

warning; pm: cloudy,

OTHER:

70 degrees

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized cell 25, which contained soils from Building 101 and PSCs 3 and 4
- Began building clay dike across center of eastern finger

Sampling/Testing Performed

- Sampled pond water in Modutank. Water appeared very turbid, so BEI plans to discontinue pumping water to FOTW until sample results are received.
- Collected two strength samples from cell 25. The stabilization depth of the cell was 6 feet, for a volume of almost 900 cubic yards. The work plan stipulates one sample per 500 cubic yards, making it necessary for two samples to be taken.

Sampled cells 22, 23, and 24 for TCLP

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-23 (roll 11) Building clay dike across center of eastern finger (S<N)

P-24 (roll 11) Stabilization of cell 25 (NW<S)

Comments

ibmitted by:

BB Environmental Services, Inc.

Field Engineer

COPIES TO:



Date: 01-15-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Bill Norton, Steve SantaMaria, Tony Renk, BECON

Weather: cloudy, windy, 67 degrees,

NAVY:

rain in afternoon

Work Performed / Corresponding Sections of BEI Work Plan

OTHER:

- Stabilized cell 23
- Stabilized cell 24
- Continued pumping pond water to FOTW
- Compacted Timuquana backfill in PSC 41 with trackhoe, and added more fill to bring level back to grade

Sampling/Testing Performed

Sampled cell 23 for strength

Sampled cell 24 for strength

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

ubmitted by:

ABB-Environmental Services, Inc.

Field Engineer

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Date: 01-14-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI. Tom Rountree, Bill Norton, John Stone, Steve SantaMaria, Rod Padgett, BECON

Weather: cloudy, windy, 60 degrees

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized cell 22
- Continued pumping pond water to FOTW
- Spread out PSC 41 stabilized material; covers cell 15 to 19
- Graded backfill in PSC 41 excavation to a smooth surface. Backfill will be compacted, and compaction testing will be performed.

Sampling/Testing Performed

Sampled cell 22 for strength

Sampled cell 21 for TCLP

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-20 (roll 11) PSC 41 backfilled with Timuquana soil; excavation and sampling are complete (N<S)

P-21 (roll 11) Excavated material from PSC 41 spread over stabilized cells 15 to 19 (N<S)

P-22 (roll 11) Stabilization of cell 22 (W<E)

Comments

One TCLP sampling location in cell 21 had 12 to 18 inches of unstabilized sludge beginning at a depth of 4 feet bls. BEI will restabilize this area of cell 21.

Submitted by:

BB Environmental Services, Inc. Min Caller

Field Engineer

COPIES TO:



Date: 01-13-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon

Project No.: 8587.41

BEL Bill Norton, Steve SantaMaria, John Stone, Tom Rountree, BECON

Weather: Cloudy, windy, 55 degrees

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- BEI stabilized cell 21, which was the area beneath the clay berm built across the center of the middle leg
- Continued pumping pond water to FOTW

Sampling/Testing Performed

BEI completed sampling of PSC 41 (floor of excavation and sidewalls). The entire excavation was backfilled on 1-09-97 to prevent collection of rainwater. A backhoe was used to dig through the backfill to native soil to collect today's samples.

Sampled cell 21 for strength

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

ENRECO sent a new set of injector tines to PSC 42, as the other set has many cracks.

Submitted by:

BE Environmental Services, Inc.

Field Engineer

COPIES TO:





Date: 1-09-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Adib Rahounji

Project No.: 8587.41

BEI: Bill Norton, Tom Rountree

Weather: cloudy, 60 degrees, afternoon rain

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

BEI completed excavation of PSC 41 stabilized material

Completed backfilling PSC 41 excavation with Timuquana soil

Sampling/Testing Performed

BEI completed floor and sidewall sampling of two cells at PSC 41. Only the northernmost cell has not been sampled. BEI plans to sample it on 1-13-97.

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-17 (roll 11) South end of PSC 41 excavation, backfilled

P-18 (roll 11) Middle portion of PSC 41 excavation; rainwater collected on floor

P-19 (roll 11) BEI backfilling north end of PSC 41 excavation

Comments

Submitted by:

BB Environmental Services, Inc.

Field Engineer



Date: 1-08-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Don Haumann, Adib Rahounji, Fred Bragdon

Project No.: 8587.41

BEI! Bill Norton, Tom Rountree, BECON

Weather: light rain,

NAVY:

60 degrees

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

BEI excavating PSC 41 material, from level of surrounding grade to plastic placed at base of stabilized material. Depth to plastic ranges from 2- to 2-1/2 feet bls. Excavation begun at south end of site. Some groundwater encountered at south end. The excavated material is being placed over PSC 42 stabilized cells at south end of middle leg, for backfill.

PSC 41 consisted of 5 "cells." All cells but the one at the north end were excavated. The two southernmost cells were backfilled with Timuquana soil, following sampling.

Sampling/Testing Performed

Samples were collected from the floor and sidewalls of southern two cells of excavation. The sidewall samples were collected with stainless steel spoon. The floor samples were collected by hand auger. A backhoe was first used to scrape away the layer of gravel that was placed between native soil and the stabilized material. A few sampling locations could not be sampled because groundwater was encountered.

eviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-4 through P-16 (roll 11) Excavation, backfill, and sampling of PSC 41 (below level of surrounding grade)

Comments

Submitted by:

BB Environmental Services Inc.

Field Engineer

COPIES TO:





Date: 1-07-97

ON-SITE PERSONNEL

ABB-ES Project No.: 8587.41

ABB-ES: Erin Allen BEI: Bill Norton, John Stone

Weather:

NAVY:

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Spreading soil excavated from PSC 3 and PSC 4 piles over Building 101 soil in dewatered area at north end of pond (see sketch).
- Continued pumping pond water to FOTW
- Moved clayey soil that was scraped from berm in middle of center leg to east side of pond. The soil will be used to build a berm in the center of the eastern leg (see sketch)

Sampling/Testing Performed

eviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-1 (roll 11) Clayey soil piled on east dike, in preparation for construction of a berm across the eastern leg of pond (S<NE)

P-2 (roll 11) Spreading building 101 soil and sludge from PSC 3 and PSC 4 over dewatered cells at north end of middle leg (SE<N)

P-3 (roll 11) Stabilized cells 14 to 20 (N<S). In foreground, clay berm across center of middle leg has been scraped away to point of saturated soil, in preparation for stabilization. The cell number will be 21.

Comments

The volume of soil excavated from PSCs 3 and 4 on 1-06-97 was approximately 20 cubic yards

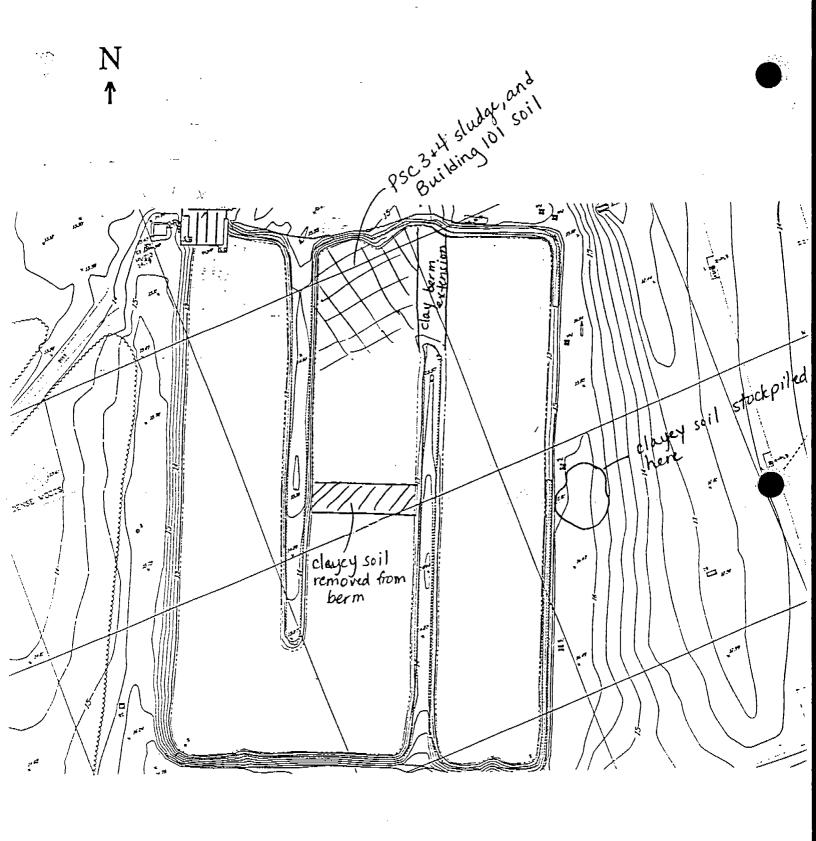
ABB and BEI discussed the sampling procedures to be used for final sampling of the PSC 41 excavation. The decision was made to sample per the PSC 41/43 work plan, which calls for 25 floor samples, 7 sidewall samples, and 1 composite of all 32 samples. The matter is to be discussed at the weekly QC meeting on 1-09, to finalize the sampling procedure.

Submitted by:

BB Environmental Services, Inc

Field Engineer

COPIES TO:







Date: 1-06-97

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon

Project No.: 8587.41

BEI: Bill Norton, Tom Rountree, BECON, Steve SantaMaria

Weather: cloudy, 75 degrees, light rain in NAVY: OTHER:

a.m.

Work Performed / Corresponding Sections of BEI Work Plan

- Continued pumping pond water to FOTW
- BEI excavated 5 sludge piles and 1 sludge area from PSC 4 and 1 area from PSC 3 (locations on attached map). Contamination found in the piles has the same constituents as the sludge in PSC 42. The sludge was hauled to the north end of the middle finger, where it will be stabilized.
- BEI dumped the remaining Building 101 soil at the north end of the middle finger, which was dewatered on 1-02-97. The soils were spread out in preparation for stabilization.

Sampling/Testing Performed

ABB took soil samples from the ground beneath the excavated sludges at PSC 3 and PSC 4

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-12 (roll 10) Excavating sludge at PSC 4, pile 5

P-13 (roll 10) Fred Bragdon collecting soil samples at excavated area for pile 1, PSC 4

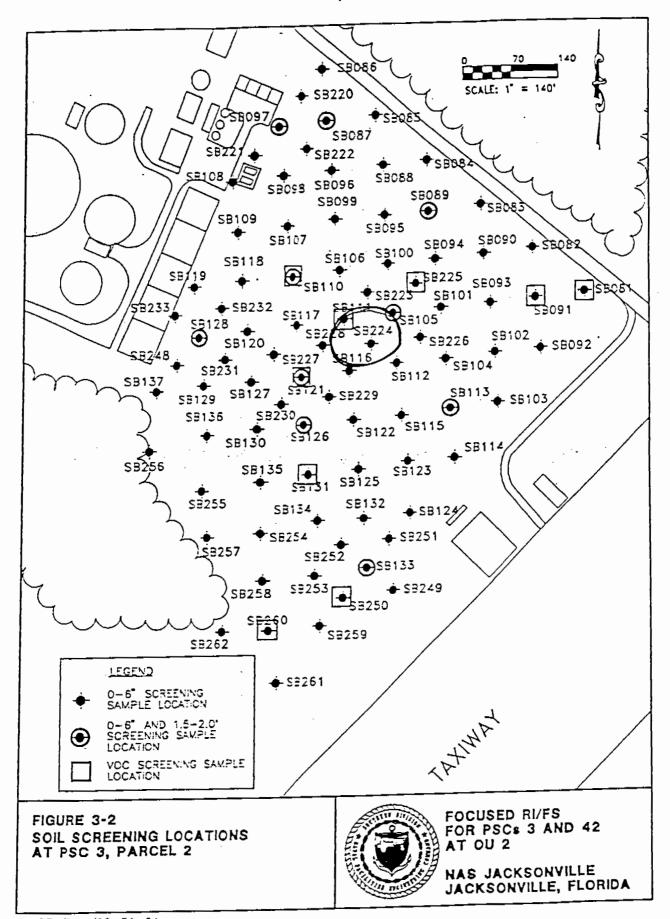
Comments

abmitted by:

ABB Environmental Services, Inc.

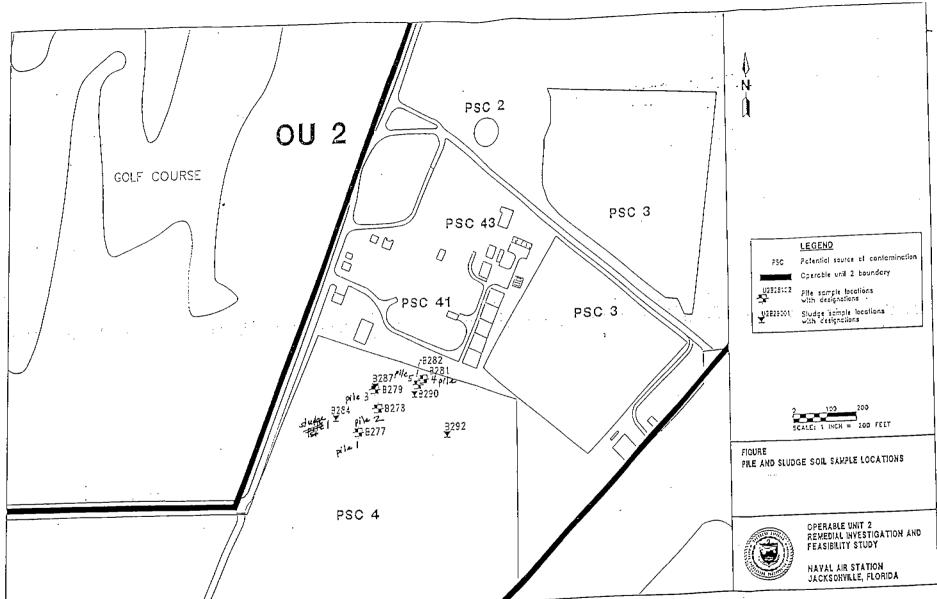
rin C. allen Field Engineer

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OUZAREA/DRM/08-31-94 FRIFSOUZ.Jax FGB.09.94

. . . .



DRAFT





Date: 1-02-97

ON-SITE PERSONNEL

ABB-ES Project No.: 8587.41 ABB-ES: Erin Allen, Don Haumann, Fred Bragdon
BEI; Bill Norton, Tom Rountree, Rod Padgett, BECON

Weather: am: foggy,

NAVY: Larry Blackburn

pm: 74 degrees, sunny

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- · Built clay extension of eastern finger of pond
- Continued pumping pond water to FOTW
- Began dewatering cells 21 to 26

Sampling/Testing Performed

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-11 (roll 10) Extension of eastern finger with clayey soil. Dense fog. (NW<E)

Comments

BEI did not work on 1-01-97, New Year's Day. BEI will work Friday, Jan. 3, to continue dewatering cells 21 to 26 and begin placing remaining Building 101 soil in the dewatered area.

Brief weekly QC meeting was held between ABB, BEI and ROICC to discuss sampling procedures to the sidewalls and bottom of the PC 41 excavation. BEI plans to complete excavation of the material during the week of Jan. 13. A final for sampling will be discussed during the weekly meeting on Jan. 9.

Submitted by:

BB Environmental Services, Inc.

Field Engineer

COPIES TO:



Date: 12-31-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

Weather: am: foggy,

BEI: Bill Norton, Rod Padgett, BECON NAVY:

little wind; pm: mostly

OTHER:

sunny, 75 degrees

Work Performed / Corresponding Sections of BEI Work Plan

- Finished stabilizing cell 19 (eastern 2/3) and the eastern edge of cell 20. This section of cell 20 was not completed when the rest on the cell was stabilized on Dec. 16, due to equipment problems
- Continued pumping pond water to FOTW

Sampling/Testing Performed

Sampled cell 18 for TCLP

Sampled cell 19 along with eastern edge of cell 20 for TCLP

impled eastern 2/3 of cell 19 and eastern edge of cell 20 for strength.

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

ibmitted by:

ABB-Environmental Services. Inc.

Field Engineer





Date: 12-30-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587,41

BEI: Bill Norton, Rod Padgett, BECON

Weather: mostly sunny, 72 degrees

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized cell 18
- Stabilized western third of cell 19
- Continued pumping pond water to FOTW
- Hauled clayey soil that was used for extension of western finger to northeast end of pond, where it will be used to extend eastern finger
- The potable water line to PSC 42 broke near the fire training area, and was repaired by BEI

Sampling/Testing Performed

Sampled cell 18 for strength

Sampled western portion of cell 19 for strength

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-9 (roll 10) Stabilization of cell 18 (W<E)

P-10 (roll 10) Clayey soil piled at northeast end of pond, to be used for extension of eastern finger (S<N)

Comments

More compaction tests were performed on backfilled soil over stabilized cells 1 to 14 during the week of 12-16-96. The tests met the compaction requirement. A new proctor was also completed.

Submitted by:

BB Environmental Services, Inc.

Trin Callon

Field Engineer

COPIES TO:



ate:							

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Bill Norton, Steve SantaMaria, Rod Padgett, BECON

Weather: Rain, 45

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized cell 17
- Continued pumping pond water to FOTW

Sampling/Testing Performed

Sampled cell 17 for strength and TCLP

Sampled cells 15 and 16 for TCLP

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

BB-Environmental Services, Inc.

Field Engineer

COPIES TO:





Date: 12-18-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES:Erin Allen

Project No.: 8587.41

BEI: Rod Padgett, Bill Norton, BECON

Weather: Rain, 60 degrees

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Clay on western finger extension scraped away, and hauled to northeast end of pond. The clay will be used to build an extension of the eastern finger
- Stabilized cells 15 and 16 (cell 15 is the cell which was under the extension of the western finger)
- Continued pumping pond water to FOTW

Sampling/Testing Performed

Sampled cells 15 and 16 for strength

Sampled cell 20 for TCLP

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Western leg of pond (stabilized cells 1 to 14) has been backfilled to grade of surrounding ground surface. The estimated volume of backfill, including Building 101 concrete, Timuquana soil, and PSC 41 stabilized material, is 8500 cubic yards.

Submitted by:

PB Environmental Services, Inc

Field Engineer

COPIES TO:



Date: 12-17-96 ON-

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Bill Norton, Tom Rountree, Rod Padgett, BECON

Weather: am: partly sunny, cool; pm: rain,

NAVY: OTHER:

75 degrees

Work Performed / Corresponding Sections of BEI Work Plan

- Moved stockpiled soil from excavation of sewer line at Building 101 into cell #19, using excavator bucket on CAT 235
- Continued backfilling over stabilized cells at southwest end of pond
- Continued pumping pond water to FOTW

Sampling/Testing Performed

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

ubmitted by:

ABB Environmental Services, Inc.

Field Engineer





Date: 12-16-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Bill Norton, Tom Rountree, Rod Padgett, Dick Gere, BECON

Weather: am: 43

NAVY: Larry Blackburn

degrees, sunny, windy; pm: 65 degrees, cloudy OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized cell #20, except for eastern edge. A bolt broke, which holds a pin in place on the injector tines, preventing completion of the cell. Sketch attached shows locations of clay dike and dewatered cells
- Continued pumping pond water to FOTW
- Continued backfill with Timuquana soil at southwest corner of pond

Sampling/Testing Performed

Three samples collected and composited for strength testing of cell #20.

eviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-4 (roll 10) Western one-third of pond, stabilized and backfilled nearly to grade (S<N)

P-5 (roll 10) Completed clay dike across center of middle finger of pond (S<N)

P-6 (roll 10) Stabilizing cell #20 (W<E)

Comments

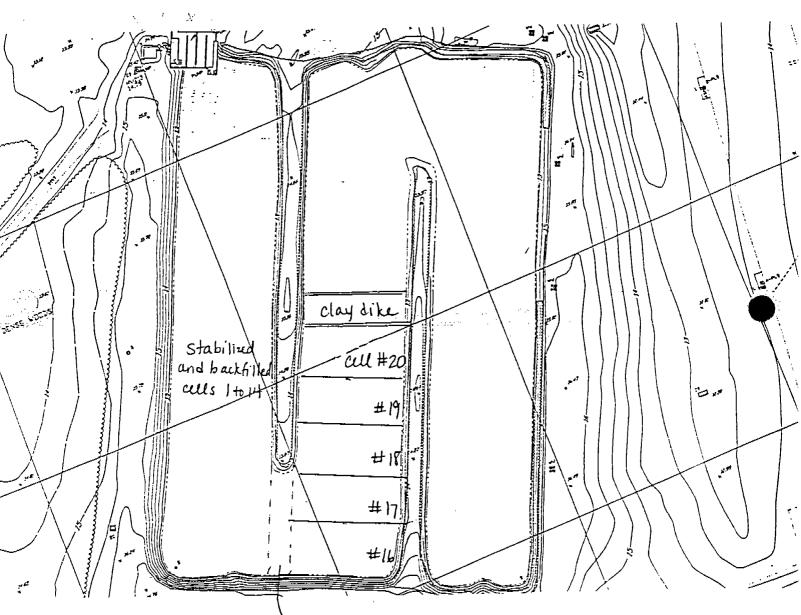
- BEI worked on Saturday, Dec. 14 to dewater the southern half of the middle leg, in preparation for stabilization.
- BEI discovered that the inlet pipe at SE corner of pond was still leaking. Water from the collection chamber was leaking into the pond. BEI dug through the berm to the pipe, broke a hole in the top of the concrete pipe, and pumped grout into it. BEI believes the pipe is now fully grouted.

ibmitted by:

BB Environmental Services, Inc.

Ern Callen

Field Engineer



clay dike (extension of western finger) (cell 15)

cell #20 stabilized 12-16-96 cells 16 to 19 dewatered but not yet stabilized





Date: 12-13-96 ABB-ES Project No.: 8587.41 ON-SITE PERSONNEL
ABB-ES: Erin Allen

BEI: Bill Norton, BECON

Weather: NAVY;
OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

BEI excavated clay to ground level on western side of pond, to use for construction of a clay dike across center of middle pond leg. This dike is being installed to replace the two water structures which failed. It will enable BEI to dewater the southern half of the middle leg, for stabilization of 5 to 6 cells. (See attached sketch)

Sampling/Testing Performed

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-2 (roll 10) Installation of clay dike across center of middle pond leg (S<N)

P-3 (roll 10) BEI grading clay off top of dike along NW edge of pond, to use for construction of dike in center of middle pond leg (E<W)

Comments

BEI will work on Saturday, Dec. 14 to dewater the southern half of the middle pond leg, to prepare for stabilization on Monday, Dec. 16.

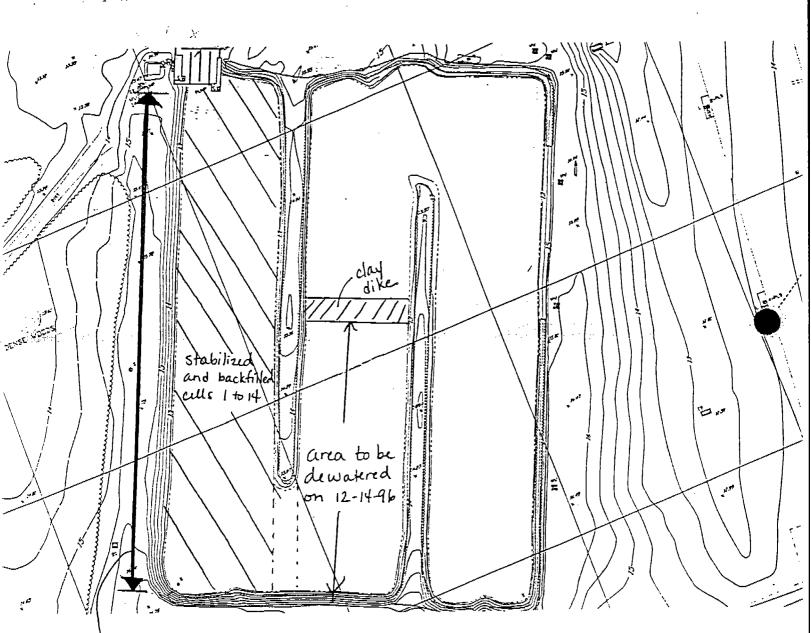
No site visit forms were completed for Dec. 11 and Dec. 12

Submitted by:

BB Environmental Services, Inc.

Field Engineer

COPIES TO:



area of berm area of berm area of berm area of berm area of sound.

So that clay could be used to contruct dike in middle leg of pond.





Date: 12-10-96 ON-SITE PERSONNEL
ABB-ES ABB-ES: Erin Allen

Project No.: 8587.41 BEL Tony Renk, Rod Padgett, BECON

Weather: sunny, 68 NAVY: degrees, windy OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- BEI continuing to dewater pond
- BEI continuing to backfill over stabilized cells on western third of pond

Sampling/Testing Performed

Continued compaction testing of backfill (Timuquana soil)

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

BEI will continue to dewater portion of pond that is not yet stabilized. Samples of the pond water will be collected weekly. BEI will also continue to backfill stabilized cells with Timuquana soil and perform compaction tests. Stabilization activities and excavation of PSC 41 material will not resume until BEI returns to work (week of January 6) after a two-week holiday break. No site visit form was completed for 12-09-96.

Submitted by:

BB-Environmental Services, Inc.

Field Engineer

COPIES TO:



Date: 12-05-96 ABB-ES Project No.: 8587.41 Weather: am: cloudy pm: light rain, 70 degrees		ONNEL	
Work Performed /	Corresponding S	ections of BEI	Vork Plan

Continued dewatering pond, discharge to FOTW

Sampling/Testing Performed

Sampled pond water being pumped to FOTW

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

- BEI will not resume stabilization until January
- The total amount of soil from Building 101 incorporated into PSC 42 was 817 cubic yards; the total volume of concrete placed on stabilized cells was 728 cubic yards

ubmitted by:
ABB Environmental Services, Inc.

Environmental Services, Inc.
Field Engineer





Date: 12-04-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

OTHER:

Project No.: 8587.41 BEI: Rod Padgett, Tom Rountree, BECON

Weather: 70 degrees, partly cloudy, little

NAVY:

wind

Work Performed / Corresponding Sections of BEI Work Plan

- Continued dewatering of pond
- Continued backfilling of Timuquana soil over stabilized cells at SW corner of pond
- Surveyed level of backfilled soil at SW corner of pond

Sampling/Testing Performed

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

ibmitted by:

BB Environmental Services, Inc.

Field Engineer

COPIES TO: Project File

ROICC



ABB-ES Project No.: 8587.41	ON-SITE PERSONNEL ABB-ES: Erin Allen BEL: BECON, Steve SantaMaria NAVY: OTHER:			
Work Performed / Cor	responding Sections of BEIV	Vork Plan		
• * Continued pumping pon	nd water to FOTW			
Began to backfill and co.	mpact Timuquana soil over stabilized	cells 13 and 14		
Sampling/Testing Perfo	ormed			
A H				
Deviations from Work	Plan / Reason for Deviation a	nd Documentation o	of Approval	353. B.P.S
Photographs/Video Doc	umentation			
-				
Comments				

Submitted by:

BB Environmental Services, Inc.

Field Engineer





Dat	e: 12-02	-96	ON-SIT	E PERSON	NEL
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		clear, 6			
deg	ees, litt	le wind	OTHE	K:	

Work Performed / Corresponding Sections of BEI Work Plan

- Equipment maintenance.
- Dewatering of pond. Heavy rains on 12-01 caused a rise in pond water level, and left standing water on backfilled cells and support
 areas.

Sampling/Testing Performed

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-1 (roll 10) PSC 41 stabilized material excavated to level of surrounding ground surface (N<S)

Comments

Submitted by:

BB Environmental Services, Inc.

Field Engineer



Date: Nov. 25, 26, 27 ON-SITE PERSONNEL ABB-ES ABB-ES: Project No.: 8587.41 BEI Weather: NAVY: OTHER:
Work Performed / Corresponding Sections of BEI Work Plan
Continued dewatering pond
The two water structures installed in middle pond leg failed, and were removed from pond
 Continued excavation of PSC 41 stabilized material. Stopped excavation at level of surrounding ground surface to avoid having an open excavation over the Thanksgiving weekend.
Sampling/Testing Performed
Deviations from Work Plan / Reason for Deviation and Documentation of Approval
·
Photographs/Video Documentation
Comments
ubmitted by: BB Environmental Services, Inc. Project File
BR Environmental Services, Inc. Project File ROICC





Date: 11-21-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Dick Geer, Bill Norton, Tom Rountree, Health and Safety supervisor from Oak Ridge, BECON

Weather: cloudy, little wind, 76 degrees; afternoon rain NAVY: OTHER:CSI

Work Performed / Corresponding Sections of BEI Work Plan

- Installation of 6-foot water structure next to 9-foot structure in center of middle pond leg
- Continued excavation of PSC 41 material, and spreading and compacting over stabilized cells 8 to 10 at PSC 42

Sampling/Testing Performed

Compaction tests performed on PSC 41 material and Timuquana soil, for a total of 5 samples

Pond water sampled from modular tank, for weekly sample as agreed upon on 11-14-96 by BEI, ROICC, FED, ABB, and PWC

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

- Timuquana soil will be used to backfill excavation at PSC 42; backfill will be compacted to 85%
- BEI is pumping about 86,000 gal/day of pond water to FOTW
- In addition to sidewall samples to be taken from excavation at PSC 41, D. Lancaster requested that 5 samples be taken from the floor of the excavation. Samples will be analyzed per the Work Plan, for RCRA metals
- It was confirmed at weekly QC meeting that BEI needs only stabilize 18-inches into native soil on the pond fingers

ubmitted by:

BB Environmental Services, Inc.

Eun alles

Field Engineer



Date: 11-20-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41 BEI: T. Rountree, Bill Norton, BECON, Dick Geer

Weather: little wind,

mostly sunny, 72

NAVY: OTHER:

degrees

Work Performed / Corresponding Sections of BEI Work Plan

- Continued excavation of PSC 41 stabilized material, and spreading over cells 8 to 10
- Continued dewatering of pond, pumping directly to FOTW
- Installed 9-foot water structure in center of middle leg of pond

Sampling/Testing Performed

reviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-18 (roll 9) Excavation of PSC 41 material (N<S)

P-19 (roll 9) PSC 41 stabilized material

P-20 (roll 9) PSC 41 material being spread over stabilized cells 8 to 10 at PSC 42 (S<N)

P-21 (roll 9) Area of western finger keyed in for installation of two water structures, to be installed side-by-side in center of middle pond leg

P-22 (roll 9) Soil from excavation of Building 101 sewer main stockpiled and covered at NE edge of site (S<N)

Comments

ubmitted by:

ABB Environmental Services, Inc.

Field Engineer

COPIES TO:





Date: 11-19-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon

Project No.: 8587.41

BEI: Dick Geer, Bill Norton, Tom Rountree, BECON

Weather: 70 degrees,

partly cloudy, little

NAVY: Anthony Robinson OTHER:

wind

Work Performed / Corresponding Sections of BEI Work Plan

- Continued hauling stabilized material from PSC 41 to PSC 42. Spreading PSC 41 material over stabilized cells, beginning just south of clay cap over building 101 concrete. Transported 850 cubic yards on 11-19.
- Continued dewatering eastern 2/3 of pond

Sampling/Testing Performed

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-16 and P-17 (roll 9) Excavation of PSC 41 stabilized material, south end of mound (SW<NE)

Comments

In a meeting with the Navy regarding PSC 43, Lissa Miller and Erin Allen discussed with Dana Gaskins and Anthony Robinson from SOUTHDIV the depth of excavation for PSC 41. It was agreed that BEI should excavate down to and including the plastic placed below the stabilized material.

ibmitted by:

BB Environmental Services, Inc.

ZALA Field Engineer



Date: 11-18-96 ON-SITE PERSONNEL

ABB-ES Project No.: 8587,41 Weather: sunny, 70

degrees, little wind

ABB-ES:

BEI NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Continued dewatering of eastern 2/3 of pond.
- Began excavation of PSC 41 material, and transported 50 cubic yards to PSC 42.
- Continued spreading and compaction of Timuquana soil over remainder of clay cap on Building 101 concrete.

Sampling/Testing Performed

Compaction tests performed on Timaquana soils compacted over remainder of clay cap.

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

BEI is not excavating PSC 41 material below mean ground level until more direction is received from partners regarding lower limit of excavation.

Submitted by:

BB Environmental Services, Inc.

Field Engineer

COPIES TO:





Date: 11-14-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon

Project No.: 8587.41

BEI: Dick Geer, Tom Rountree, BECON, Bill Norton

Weather: cloudy,

NAVY:

windy 71 degrees

OTHER: CSI technician

Work Performed / Corresponding Sections of BEI Work Plan

- Completed compaction of clay cap over Building 101 concrete on stabilized cells 1 to 7
- Rebuilding water structures
- Pumped water in modular tanks to FOTW

Sampling/Testing Performed

- TCLP sampling of western half of cell 13, eastern half of cell 14, and western half of cell 14
- ABB hand-augured through clay cap over Building 101 concrete in 4 locations to verify 8-inch thickness
- Two compaction tests on clay cap over Building 101 concrete; two compaction tests of Timuquana soil over clay cap on cells 1 and 2

Deviations from Work Plan / Reason for Deviation and Documentation of Approval 🚎 😁 🦂 🗫 🛼

Photographs/Video Documentation

P-15 (roll 9) Compaction testing of clay cap over Building 101 concrete on stabilized cells (N<S)

Comments

In order to lower level of pond water about 2 feet in middle and eastern leg, BEI will now sample pond water only once per week, and will discharge water daily to FOTW. Refer to weekly QC meeting minutes.

Submitted by:

BB-Environmental Services, Inc.

Trin Caller

Field Engineer

COPIES TO:



Date: 11-13-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon, Mark Joop, Alex Olis

Project No.: 8587.41

BEI: Dick Geer, Steve SantaMaria, T. Rountree, B. Norton, BECON

Weather:windy, mostly sunny,

NAVY: OTHER:

degrees

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized western end of cell 14, completing stabilization for the western leg of the pond.
- Finished covering Building 101 concrete on stabilized cells with clayey soil, and continued compacting the soil.
- Pumped water in Modutanks to FOTW and refilled tanks.

Sampling/Testing Performed

Sampled pond water pumped into Modutanks

73

Sampled west end of cells 13 and 14 for compressive strength

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-14 (roll 9) Compaction of clay cap over Building 101 concrete on stabilized cells (S<N)

Comments

ibmitted by:

ABB Environmental Services, Inc.

Field Engineer





Date: 11-12-96

ON-SITE PERSONNEL

ABB-ES Project No.: 8587.41 ABB-ES: Erin Allen, Fred Bragdon
BEI: Bill Norton, Dick Geer, BECON

Weather:windy, sunny, 63 degrees

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized western edge of cell 13, completing the cell
- Stabilized eastern 2/3 of cell 14
- · Filled Modutanks with pond water
- Completed dumping Building 101 concrete on stabilized cells. Placed clay cover over most of concrete. Concrete is spread across stabilized cells 1 to 7, with little concrete on cell 1

Sampling/Testing Performed

Collected strength sample for eastern half of cell 14

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-11 (roll 9) Stabilizing cell 14, with Building 101 soil (E<W)

P-12 and P-13 (roll 9) Dumping and spreading clayey soil from P-3 hangar over Building 101 concrete on stabilized cells (S<N)

Comments

Submitted by:

BB Environmental Services, Inc.

Field Engineer

COPIES TO:



Date: 11-11-96 ON-SITE PERSONNEL ABB-ES ABB-ES: Project No.: 8587.41 BEI Weather: NAVY: OTHER:		
Work Performed / Corresponding Sections of BEI	Work Plan	
Stabilized middle of cell 13	•	
		÷
Sampling/Testing Performed		·
Sampled middle of cell 13 for strength		
Deviations from Work Plan / Reason for Deviation a	nd Documentation of Approval	. .
Photographs/Video Documentation		
Comments		
•		
Submitted by: 3B Environmental Services, Inc. Field Engineer		COPIES TO: Project File ROICC





Date: 11-07-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon

Project No.: 8587.41

BEI: Rod Padgett, Tom Rountree, BECON, Bill Norton, Frank Cater

Weather: 82 degrees, sunny

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized approximately 175 cubic yards of material in cell 13 (one strip across width of cell). Seal broke on slurry pump again, stopping stabilization
- Continued dumping Building 101 concrete on stabilized cells and covering with clayey soil.
- BEI began to pump water in Modutanks to FOTW, and 90-degree bend in transfer line near FOTW cracked. BEI repaired the transfer pipe.

Sampling/Testing Performed

Collected density sample for mixed sludge/sediment/Building 101 soil in cell 13, prior to stabilization

Collected TCLP sample, composited from 3 locations taken from west side of cell 12, and east side of cell 13. These areas were stabilized on .1.1-05-96. The total volume of the two stabilized areas did not exceed 500 cubic yards, so sampling the combined areas is acceptable.

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-4 (roll 9) Building 101 concrete spread over cells 1 to 5. At left, pile of clayey soil to be spread across concrete. Metal sheet piling from Building 101 also visible (S<N)

P-5 (roll 9) Collecting TCLP sample in cell 13.

Comments

Submitted by:

3B Environmental Services, Inc.

COPIES TO:
Project File
ROICC

Field Engineer



Date: 11-06-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Adib Rahounji

Project No.: 8587.41

BEI: BECON, Rod Padgett, Bill Norton, Tom Rountree, Dick Geer

Weather: a.m.: foggy;

NAVY:

p.m.: little wind 83

OTHER:

degrees, mostly sunny

Work Performed / Corresponding Sections of BEI Work Plan

- Repairing broken seal on slurry pump
- Tested water treatment skid for effectiveness treated 1400 gallons of turbid pond water
- Continued dumping Building 101 concrete on stabilized cells. Concrete has been spread about 200 feet south of water treatment skid. The concrete has been spread to cell 5 (new cell number), although very little concrete was spread on cell 1

Sampling/Testing Performed

Sampled water treated by water treatment skid

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

ibmitted by:

ABB Environmental Services, Inc.

Vun (.a

Field Engineer

COPIES TO:





Date: 11-05-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: T. Rountree, Bill Norton, Steve SantaMaria, BECON

Weather: mostly

NAVY:

sunny, little wind, 78

OTHER:

degrees

Work Performed / Corresponding Sections of BEI Work Plan

- BEI placed two poly tanks near water treatment skid to hold untreated and treated water when the skid is tested for effectiveness. Filled one tank with very turbid water from the pond. The pond water was stirred with a backhoe before being pumped from the pond, to increase its turbidity.
- Stabilized remainder of cell 12 (west end) and stabilized east end of cell 13. Stabilization was stopped due to a broken seal on slurry pump.
- Continued dumping Building 101 concrete on stabilized cells

Sampling/Testing Performed

- Sampled turbid pond water that is to be treated by skid.
- Density measurement for mixed sludge/sediment taken on west end of cell 12, prior to stabilization.

Density measurement for mixed sludge/sediment/building 101 soil taken in cell 13, prior to stabilization.

 West end of cell 12 and east end of cell 13 sampled for strength. Two locations in each area were sampled; the four samples were composited. The volume of both areas combined did not exceed 500 cubic yards.

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-1, P-2, P-3 (roll 9) Poly tanks placed near water treatment skid, to hold untreated and treated pond water during trial run of skid (N<S) (Camera seemed to malfunction, so these photos may be overexposed)

Comments

ibmitted by:

BB-Environmental Services, Inc.

Field Engineer

COPIES TO:

Project File ROICC

rin C



Date: 11-04-96	ON-SITE PERSONNEL
	ABB-ES: Erin Allen
Project No.: 8587.41	displacement i com conserva i e i militari i con con un contrato de la compansión del como de la compansión de
Weather: 80 degrees,	
sunny	

Work Performed / Corresponding Sections of BEI Work Plan

- · BEI finishing time critical response at helo pad
- Pumped water in Modutanks to FOTW, and refilled tanks with pond water. A total of 388,000 gallons of pond water have been pumped
 to the FOTW to date.

Sampling/Testing Performed

Sampled pond water pumped into Modutanks

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by: 3B Environmenta

BB Environmental Services, Inc.

Field Engineer

COPIES TO:





	Construction Oversight, FSC 42 - Serpentine Fond
	Date: 10-31-96 ON-SITE PERSONNEL ABB-ES ABB-ES: Project No.: 8587.41 BEI Weather: NAVY: OTHER:
	Work Performed / Corresponding Sections of BEI Work Plan
,	No work was performed at PSC 42. BEI was under obligation to conduct a time-critical response, for repair of a damaged helo pad.
	Sampling/Testing Performed
	Deviations from Work Plan / Reason for Deviation and Documentation of Approval
P	hotographs/Video Documentation
C	omments
	bmitted by: BB Environmental Services, Inc. Project File ROICC ROICC



Date: 10-30-96 ON-SITE PERSONNEL ABB-ES ABB-ES: None Project No.: 8587.41 BEI Weather: 85 degrees, NAVY: sunny OTHER:	
Work Performed / Corresponding Sections of BEI	Vork Plan
BEI continued work at Building 101, so no work was performed a	t PSC 42
Sampling/Testing Performed	
Deviations from Work Plan / Reason for Deviation a	nd Documentation of Approval
Photographs/Video Documentation	
Comments	
Submitted by: 3B Environmental Services, Inc. Field Engineer	COPIES TO: Project File ROICC





Date: 10-29-96 ON-SITE PERSO		
ABB-ES ABB-ES: Erin Al Project No.: 8587.41 BEI: Rod Padgett Weather: 84 degrees, NAVY:	a reason (1966) (1965). The reason (1964) (1964)	ıtosh
sunny, little wind OTHER: Work Performed / Corresponding Sec		**/- *- 1

Regenerated ion beds in water treatment skid

BEI worked at Building 101, to excavate a sewer line. The excavated concrete and soil were delivered to PSC 42.

Sampling/Testing Performed

eviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

3B Environmental Services, Inc.

Field Engineer

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Date: 10-28-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon

Project No.: 8587.41

BEI: Dick Geer, Bill Norton, Rod Padgett, Tom Rountree, BECON

Weather: 84 degrees, partly cloudy

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Water in Modutanks pumped to FOTW. Refilled both tanks with pond water.
- Continued dumping Building 101 concrete on stabilized cells. Backfilling with clayer soil, then Timaquana soil
- Compactor delivered to site, to be used for compacting soil over the Building 101 concrete on stabilized cells.
- Delivery of HCl and NaOH for regeneration of ion beds in water treatment skid

Sampling/Testing Performed

Collected sample of pond water pumped into Modutanks

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-14 (roll 8) Building 101 soil spread in cells 13 and 14 prior to stabilization (E<W)

P-15 (roll 8) Spreading Building 101 concrete on stabilized cells 1, 2, 3. Covering with clayey soil, then backfilling with Timaquana soil.

Comments

Submitted by:

men Caller Field Engineer

3B Environmental Services, Inc.

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VIS10-28.DOC:10/29/96





Date: 10-24-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Bill Norton, Dick Geer, Rod Padgett, BECON

Weather:partly cloudy, 72 degrees NAVY:

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Continued spreading of building 101 soils in cells 13, 14
- Surveyors onsite to determine amount of soil in Timaquana pile

Sampling/Testing Performed

Cell 12 sampled for TCLP

Core sample taken from east side of cell 10 (old cell number 6). The sample will be tested for strength, as the sample collected from this portion of cell 10 (stabilized on 9-10-96) failed laboratory strength tests.

eviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-13 (roll 8) Core drill set up to collect sample from cell 10 (old cell number 6)

Comments

Submitted by:

BEnvironmental Services, Inc. un C. aller

Field Engineer

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Date: 10-23-96

ON-SITE PERSONNEL

ABB-ES Project No.: 8587.41 ABB-ES: Erin Allen, Adib Rahounji, Fred Bragdon, Julie Cozzie BEI: Bill Norton, Rod Padgett, BECON, Dick Geer, Tony Renk

Weather: mostly

NAVY:

sunny, 82 degrees, light afternoon rain

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized most of cell 12. Mechanical problems with CAT 235 prevented completion of the western edge of cell. (No building 101 soil was added to cell 12).
- Pumped pond water in modular tanks to FOTW, and refilled tanks with pond water.

Sampling/Testing Performed

- Sampled pond water pumped into modular tanks.
- · Collected strength samples from cell 12

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Water structures are not placed between cells 12, 13, and 14. Cell sizes, however, will remain approximately 40 ft. x 100 ft. Sampling procedures and frequency remain the same. Stakes and flagging were placed across the west pond leg and the southern boundary of cell 12, as a reference for the CAT operator. There is no change in intent of the workplan.

Photographs/Video Documentation

P-11 (roll 8) South end of west pond leg, dewatered. Building 101 soils have been spread across cells 13, 14. (SE<W)

P-12 (roll 8) Stabilization of cell 12. Note tape stretched across southern boundary of cell as a reference for CAT operator.

Comments

ibmitted by:

ABB Environmental Services, Inc.

Field Engineer

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Document2:10/25/96





ABB-ES: Erin Allen, Fre	d Bragdon, Adib Raho	யர் , BECON
OTHER:		
	ABB-ES: Erin Allen, Fre BEI: Bill Norton, Tony R NAVY: OTHER:	ON-SITE PERSONNEL ABB-ES: Erin Allen, Fred Bragdon, Adib Raho BEI: Bill Norton, Tony Renk, Steve SantaMaria NAVY: OTHER: Corresponding Sections of BEI Work Plan

Building 101 soil spread in dewatered area in south end of west pond leg, to be stabilized

•	Delivery	of cement	to tanker	in n	reparation	for stabili	ization
•	Denvery	or content	to taunci.	, au p	reparation	TOT SPECTIF	α_{00}

Sampling/Testing Performed

eviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by

3B Environmental Services, Inc.

(Luc C C C C C C Field Engineer



Date: 10-21-96 ABB-ES

ON-SITE PERSONNEL

Project No.: 8587.41

ABB-ES: Fred Bragdon BEI: Dick Geer, BECON

Weather:

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Pumped water from modular tanks to FOTW
- Refilled modular tanks with pond water
- Dewatered south end of west leg of pond; discharged water to middle leg
- Started spreading soil from Timuquana over stabilized cells, bldg. 101 concrete and clayey soils on stabilized cells 1, 2, and 3. This will be a partial cover to protect the stabilized cells.

Sampling/Testing Performed

Sampled pond water pumped into modular tanks

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

6-foot water structure installed in middle finger of pond on 10-17-96 failed

Submitted by:

ubmittea oy. 3B Environmental Services, Inc.

Field Engineer





Date: 10-17-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon

Project No.: 8587.41

BEI. Tom Rountree, Bill Norton, Rod Padgett, Dick Geer, BECON

Weather: a.m.; light rain; p.m.; cloudy, 81

NAVY:

degrees

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Pumped pond water in Modutanks to FOTW
- Installed 6-foot water structure in middle leg of pond, as shown on back of page
- Removed 9-foot water structure from pond structure failed during rainstorms
- Inlet pipe at SE corner of pond leaking again. Clayey soil was packed around length of pipe for temporary barrier. BEI plans to pump more grout into pipe when stabilization resumes.

Sampling/Testing Performed

Performed sludge thickness soundings for remaining cells to be stabilized in western leg of pond.

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-8 (roll 8) Clay soil placed around inlet pipe, as temporary barrier to leakage (W<E)

P-9 (roll 8) Dewatered western leg of pond, following installation of berm extension on west finger. Stabilized cells 1 to 11 now above water level (S<N)

P-10 (roll 8) Stress fracture along west side of berm extension of western finger. Fracture is at level of water prior to dewatering (S<N)

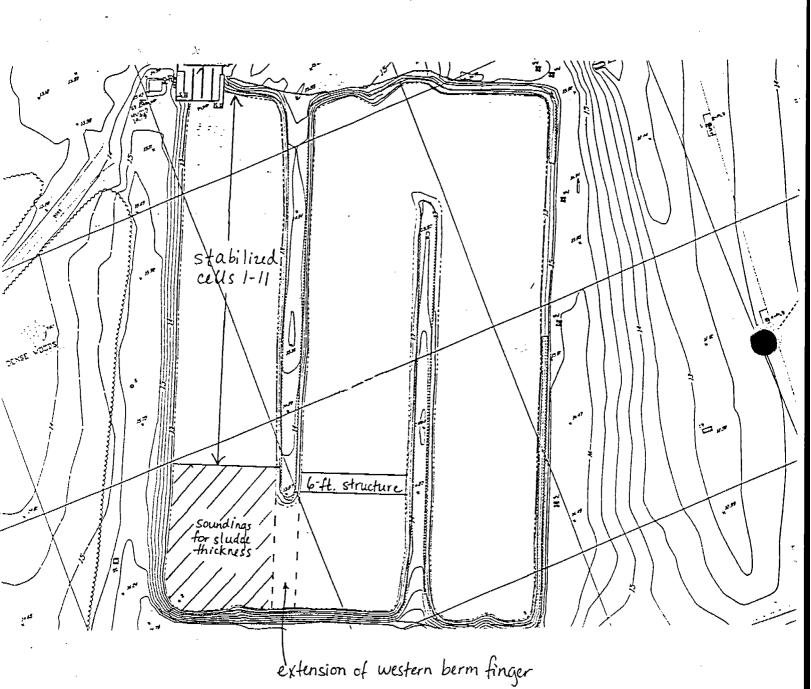
Comments

ibmitted by:

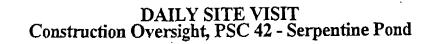
BB Environmental Services, Inc.

Field Engineer

COPIES TO:







Date: 10-16-96 ON-SITE PERSONNEL
ABB-ES ABB-ES: Erin Allen
Project No.: 8587.41 BEI: Tom Rountree, BECON
Weather: 80 degrees, NAVY:
cloudy OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

 Pumped pond water from western leg of pond across berm extension to remainder of pond. Stabilized cells 1 to 11 now above water level.

Sampling/Testing Performed

eviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-7 (roll 8) Completed soil extension of western finger (E<W)

Comments

Submitted by:

BB Environmental Services, Inc.

C. Aller

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Project File
ROICC

Field Engineer



Date: 10-15-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Tom Rountree, Bill Norton, Rod Pagett, Dick Geer

Weather: cloudy, 80

NAVY:

degrees

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Filled both Modutanks with pond water
- Extended western berm finger with clayey soil from the P-3 hangar, segregating western leg of the pond

Sampling/Testing Performed

Sampled the pond water from the Modutanks

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-1 and P-2 (roll 8) Building soil extension on western finger (SE<W)

P-3 (roll 8) Middle leg of pond. Water level remains high after rains. Failed 9-foot water structure in water.

P-4 (roll 8) Circulation of water between modular tanks prior to sampling.

P-5 (roll 8) Access road built for dump trucks to haul clayey soil for extension of berm finger (S<N)

P-6 (roll 8) Extension of western berm finger (SE<NW)

Comments

Submitted by:

BB Environmental Services, Inc.

MAJ C. GV

Field Engineer





Date: 10-14-96 ON-SITE PERSONNEL ABB-ES ABB-ES: Erin Allen Project No.: 8587.41 BEI: Dick Geer, T. Rountree, Bill Norton, BECON Weather: 76 degrees, NAVY: mostly cloudy OTHER:	
Work Performed / Corresponding Sections of BEI Work Plan	
• Building an access road at south end of site, for delivery of soil to extend berm finger and for better	access by cement delivery trucks
• Water from both modular tanks pumped to FOTW. This is the pond water that was sampled on 10-	09.
Sampling/Testing Performed	·
eviations from Work Plan / Reason for Deviation and Documentation of Approva	al
Photographs/Video Documentation	
Comments	

Submitted by:

BB Environmental Services, Inc.

Field Engineer



Date: 10-10-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: none

Project No.: 8587.41

BEI

Weather: sunny, 80

NAVY:

degrees

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Continued rehabilitating site from rainstorm
- Removed 6-foot water structure from the pond

Sampling/Testing Performed

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Due to the problems which have been encountered with the water structures, BEI wants to extend the two fingers in the pond with soil, creating three separate sections of water. The middle and eastern legs of the pond might then be subdivided with one water structure in the middle. This action would not alter the intent of the stabilization process.

Photographs/Video Documentation

Comments

The decision was made at the weekly QC meeting that the pond water covering stabilized cells 1 to 11 does not need to be sampled. The pond water covered the cells after rainstorms, causing a rise in water level in the pond and failure of a water structure which separated the stabilized cells from the remainder of the pond. Water from the pond is sampled each time the modular tanks are filled.

Submitted by:

BB Environmental Services, Inc.

Field Engineer

COPIES TO:





Date: 10-09-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Tom Rountree, BECON, Bill Norton, Tony Renk (BEI Safety), Steve SantaMaria

Weather:Partly sunny, 80 degrees

NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Plumbed up water transfer line, so that transfer pump may be used to circulate water between the modular tanks, for sampling purposes.
- BEI filled both modular tanks with pond water

Sampling/Testing Performed

One water sample was collected from the pond water pumped in to modular tanks.

Eviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

At weekly meeting on 10-03-96, BEI asked Jay Caddy from Public Works whether just one pond water sample could be collected from the modular tanks, if water was pumped into one tank and transferred from there into the second tank. PWC accepted the approach of taking only one sample as long as the water is circulated between the tanks. For the sample collected today, the water was circulated using the 4-inch pumps rather than the transfer line since it was not yet ready.

Submitted by:

3B Environmental Services, Inc.

Field Engineer

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	Constitution Oversign	11,150 12 501	penimo i ona	
ABB-ES ABI Project No.: 8587.41 BEI Weather: cloudy, 77 NA	ITE PERSONNEL 3-ES: Erin Allen, Fred Bragdon T. Rountree, Rod Pagett, Bill VY: IER:	n Norton, BECON		
Work Performed / Corresp	oonding Sections of BEI V	Vork Plan		
BEI pumped water from both mod	lular tanks to FOTW. The water	in the tanks was samp	oled on 10-03.	•
Sampling/Testing Perform	eď			
 ¥\}				
Deviations from Work Plan	ı / Reason for Deviation a	nd Documentatio	n of Approval	in the Sugar
				·
Photographs/Video Docum	entation			
Comments				
Pond level has risen from the hea	vy rains. Much of the site (sta	ging areas, decon. pa	nd, etc.) is still covered b	y standing water.
Submitted by:			COP	ŒS TO:
3B Environmental Services, In				Project File ROICC

Field Engineer





Date: 10-07-96 ON-SITE PERSONNEL

ABB-ES: Erin Allen

Project No.: 8587.41 BEI: Tom Rountree, BEI Safety, Bill Norton

Weather: raining, 78 NAVY: degrees OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

No work performed. Heavy rains during the weekend and the past week have caused the pond water level to rise. Both water structures in the pond rolled - one 6-foot structure and one 9-foot. Stabilized cells 1 to 11 are under water. Much of the staging areas, access roads, decon. pad, etc. are under water.

Sampling/Testing Performed

(See COMMENTS)

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-21 to P-25 (roll 7) Photographs of the site, failed water structures, etc., following several days of heavy rain.

Comments

Note: On Thursday afternoon, 10-03, both modular tanks were pumped full of pond water. Each tank was sampled, with a 5-day turn around time

Submitted by:

3B Environmental Services, Inc.

Field Engineer

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Construction Oversight, PSC 42 - Serpentine Fond	
Date: 10-03-96 ON-SITE PERSONNEL ABB-ES ABB-ES: Erin Allen Project No.: 8587.41 BEI: Tom Rountree, Rod Padgett, BECON Weather: Heavy rain, NAVY: 83 degrees OTHER:	
Work Performed / Corresponding Sections of BEI Work Plan	-
Continued fabricating 9-foot water structure	
 Removed 6-foot water structure from pond (structure rolled during week of 9-23) 	
Pumped remaining water in first modular tank to FOTW	
Sampling/Testing Performed	
Deviations from Work Plan / Reason for Deviation and Documentation of Approval	
Deviations from Work Tian / Reason for Deviation and Documentation of Approva	
Photographs/Video Documentation	
\sim	
Comments	
Comments	
Submitted by 3B Environmental Services, Inc. Project Fi	le
Field Engineer	





Date: 10-02-96 ON-SITE PERSONNEL
ABB-ES: Erin Allen

Project No.: 8587.41 BEI: BECON, Tom Rountree, Rod Padgett

Weather: rainy, 85 NAVY: degrees OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Continued fabrication of 9-foot water structure
- Worked on water treatment skid; treated water for about 1 bour, difficulty maintaining good conductivity values
- BEI received analyticals on pond water in modular tank 1; passed all NPDES discharge requirements prior to treatment

Sami	oling	Testing.	Perfor	med
	~			

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

BEnvironmental Services, Inc.

Field Engineer



Date: 10-01-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: BECON, Bill Norton, Tom Rountree, Rod Padgett

Weather: cloudy, 86

NAVY:

degrees OTHER: Electrician

Work Performed / Corresponding Sections of BEI Work Plan

- Continued refabrication of 9-foot water structure
- Fastened top brace on second modular tank, completing assembly of the tank
- Tested water treatment skid. Ran skid at approximately 45 gpm, 45 psi. Treated over 500 gallons of water.

Sami	nling.	/Testir	19 Pei	rform	ed
	74444				

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

3B Environmental Services, Inc.

Frin C. aller

Field Engineer

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Date: 9-30-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon

Project No.: 8587.41

BEI: BECON, Tom Rountree, Bill Norton, Rod Padgett, Eddie Najmola, Dick Gere

Weather: a.m.: light rain; p.m.: 85 degrees,

NAVY: OTHER:

cloudy

Work Performed / Corresponding Sections of BEI Work Plan

- Continued refabrication of 9-foot water structure
- Pumped first modular tank approximately 2/3 full of pond water, to reduce level of water in pond
- Drained 6-foot water structure in center of middle leg of pond, which rolled last week

Sampling/Testing Performed

Sampled pond water in first modular tank for NPDES discharge parameters

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

A total of 9400 gallons of water were transferred from the first modular tank to the FOTW on 9-26

bmitted by:

BB Environmental Services, Inc.

Field Engineer



Date: 9-26-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Tom Rountree, Bill Norton, Rod Padgett, BECON

Weather: pt. sunny, NAVY: 87 degrees

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Refabricated 9-foot water structure removed from pond on 9-25
- Completed water transfer line from modular tank to FOTW. Primed transfer pump and pumped water from first modular tank to the FOTW, at rate of 138 gpm. No leaks along conveyance piping.
- 6-foot water structure in center of middle leg of pond rolled toward south

Sampling/Testing Performed

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-19 (roll 7) Transfer pump and flowmeter on transfer line from modular tank to FOTW

P-20 (roll 7) Discharge of water from modular tank to FOTW

Comments

Submitted by:

3B-Environmental Services, Inc.

Field Engineer

an c

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Date: 9-25-96 ON-SITE PERSONNEL

ABB-ES: Erin Allen, F. Bragdon

Project No.: 8587.41 BEI: BECON, Bill Norton, Tom Rountree, Frank Cater

Weather: sunny, 88 NAVY: degrees OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Hooked up flowmeter to transfer line from modular tank to PWC
- 9-foot water structure at south end of middle leg of pond was drained and removed from pond. Because one of the inner tubes failed, the structure must be restructured and re-installed.
- Routine maintenanceand servicing of equipment

Sampling/Testing Performed

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

BEnvironmental Services, Inc.

Field Engineer

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ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: BECON, Bill Norton, Rod Padgett, Tom Rountree

Weather: sunny, 87 NAVY:

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Installation of 6-foot water structure in middle of center leg of pond
- Delivery of 200 tons of rock to build up area near stabilization unit which gets muddy due to rain

Sampling/Testing Performed

TCLP sampling of west end of cells 6/7

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

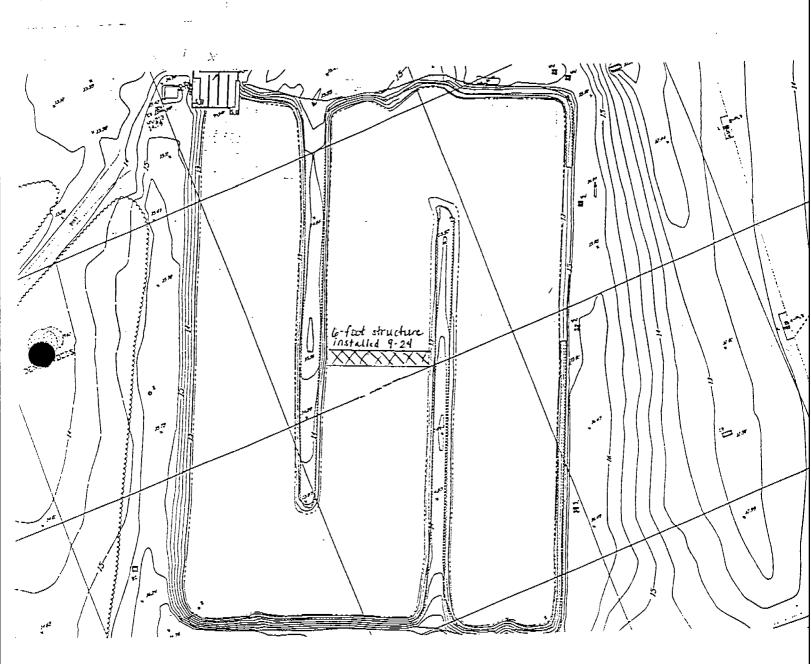
Comments

Submitted by:

3B Environmental Services, Inc.

Field Engineer

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ada l Tariharan	Construction Oversig	ght, PSC 42 - Serpentine Pond	
Date: 9-23-96 ABB-ES Project No.: 858 Weather: sunny degrees	ABB-ES: Erin Allen 37.41 BEI: BECON, Tom Rountree, Bi	II Norton	
Work Perform	ned / Corresponding Sections of BEI	Work Plan	
Fabricated 6-f	foot water structure		
Welded crack	ced injector tine		
Sampling/Testi	ing Performed		;
• -			
eviations fron	n Work Plan / Reason for Deviation	and Documentation of Approval	A Section 1988 Contraction and account
Photographs/Vi	ideo Documentation		
	,		
Comments			
	•		
Submitted by: 3B Environmenta	al Services, Inc.	CC	OPIES TO: Project File ROICC





Date: 9-19-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Don Haumann, Kurt Sichelstiel

Project No.: 8587.41

BEI: BECON, Tom Rountree, Bill Norton

Weather:partly cloudy, 82 degrees OTHER:

NAVY:

Work Performed / Corresponding Sections of BEI Work Plan

- Continued to address health and safety issues on site
- Re-secured cover on Building 101 concrete and soil
- Delivery of new bladders for 6-foot water structures

Sampling/Testing Performed

eviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

The western end of cells 6/7 has not yet been sampled for TCLP, although the area was stabilized on 9-16. The surface of the area is still very soft, and the pocket penetrometer tests of the samples collected for strength indicate that the cell area may not pass strength requirements. BEI will wait for results of 7-day or 14-day strength tests. If the cell 6/7 area does not pass strength requirements, BEI will not sample for TCLP, since the area will need to be reworked.

Submitted by:

3B Environmental Services, Inc. rin caller

Field Engineer

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Date: 9-18-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon

Project No.: 8587.41

BEI: BECON, Tom Rountree, Bill Norton, Eddie Najmola, Doug Hartman

Weather: sunny, 88 NAVY: degrees, little wind

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Addressed site health and safety issues
- Completed installation of 9-foot water structure at north end of middle leg of pond
- Continues backfilling clayey soil over cells 1 to 4

Sampling/Testing Performed

eviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

Comments

Submitted by:

3B Environmental Services, Inc.

Field Engineer

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Date: 9-17-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

OTHER: Electricians

Project No.: 8587.41

BEI: BECON, Tom Rountree, Bill Norton

Weather: am: partly

NAVY:

cloudy, 89 degrees;

NAVY:

pm: light rain

Work Performed / Corresponding Sections of BEI Work Plan

Reconstructed 9-foot water structure removed from cell 4A

Added acid to water in modular tank to lower pH. The pH was previously tested at 9.6, and PWC discharge requirement for pH is 9.5.

Sampling/Testing Performed

- Sampled cell 4A for TCLP
- Sampled pH of water in first modular tank. Water has passed all other discharge criteria.

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-14 (roll 7) BECON rolling up 9-foot water structure

P-15 and P-16 (roll 7) BEI washing off baby softshell turtle that was covered with stabilized material, and releasing it to SE corner of pond

Comments

BEI attempted to sample the western portion of cells 6/7 by hand augering, but recovery was poor. Could not get split spoon assembly toegether, so BEI plans to sample this area on 9-18. BEI plans to take one TCLP sample, composited over the western portion of the two cells, stabilized 9-16, as the volume of the area does not exceed 500 cubic yards-the maximum volume per sample according to the BEI workplan.

bmitted by:

BB Environmental Services, Inc.

Field Engineer

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Project File ROICC



Date: 9-16-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41
Weather: a.m.: sunny,

88 degrees; p.m.: light

BEL Tom Rountree, Bill Norton, Rod Padgett, BECON, QC manager

NAVY: L. Blackburn OTHER: Electricians

rain

Work Performed / Corresponding Sections of BEI Work Plan

- Continued spreading of clayey soil over Building 101 material on stabilized cells 1 to 4.
- Western edge of cells 6/7 stabilized
- Electricians on-site to hook up transfer pump for water treatment
- Stabilization of cell 4A

Sampling/Testing Performed

- Soundings for sludge thickness performed in cell 4A
- Strength samples collected from cell 4A and stabilized portions of cells 6 and 7

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-13 (roll 7) Foreground: stabilization of cell 4A. Background: spreading clayey soil over Building 101 material on stabilized cells 1 to 4

Comments

bmitted by:

ABB Environmental Services, Inc.

Field Engineer

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Date: 9-12-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Lissa Miller

Project No.: 8587.41

BEI: Tom Rountree, BECON, Bill Norton, Rod Padgett

Weather: sunny, 88

NAVY: Diane Lancaster, Dana Gaskins

degrees, humid

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Spreading P-3 hangar clayey soil over the Building 101 concrete and debris in stabilized cells
- Continued work on water transfer line (conveyance pipe) to water treatment skid
- Delivery of cement to tanker

Sampling/Testing Performed

- Surface of cell 5 sampled to depth of 1 foot
- TCLP sampling for cells 6 and 7

Deviations from Work Plan / Reason for Deviation and Documentation of Approval (2014) (1994) (1994)

Photographs/Video Documentation

P-11 (roll 7) Loaders spreading clayey soil from P-3 hangar over Building 101 concrete and debris on stabilized cells 1 to 4 (SE<N)

Comments

Submitted by:

BE Environmental Services, Inc.

Field Engineer

Trins C

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Date: 9-11-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Bill Norton, Hermann Bauer, Rod Padgett, Tom Rountree, BECON

Weather:a.m.; cloudy, NAVY: None

humid, 88 degrees;

OTHER:

p.m.: light rain

Work Performed / Corresponding Sections of BEI Work Plan

- Continued stabilization of cells 6/7. Stabilization unit ran out of cement, delaying completion of the cells
- Continued dumping and spreading of Building 101 concrete and debris over stabilized cells 1 to 4
- Water structure in cell 4A drained and removed from pond, in preparation for stabilization

Sampling/Testing Performed

Strength samples collected from portion of cell 6 stabilized today, strength samples collected and composited from portions of cell 7 stabilized today and on 9-10-96

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

None

Comments

ibmitted by:

ABB Environmental Services, Inc.

Field Engineer

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Date: 9-10-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Srin Kuchibotla

Project No.: 8587.41

BEI: BECON, Tom Rountree, Bill Norton, Rod Padgett, Frank Cater

Weather: humid,

NAVY: Henry-FED

cloudy, 90 degrees;

OTHER:

afternoon: rain

Work Performed / Corresponding Sections of BEI Work Plan

- Stabilized eastern half of cells 6 and 7
- Spread Building 101 concrete and the P-3 hangar clayey soil (used as a liner for the stockpiled concrete) over stabilized cells

Sampling/Testing Performed

Strength samples taken from stabilized portion of cell 6

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-8 (roll 7) Loaders pushing Building 101 concrete onto stabilized cell 1, (SW<NE)

P-9 (roll 7) Stabilization of cells 6/7, (NE<S)

P-10 (roll 7) Spreading of Building 101 concrete and P-3 hangar clayey soil over stabilized cells 1, 1A, 2

Comments

Continued problems with stabilization unit slowed stabilization

bmitted by:

BD Environmental Services, Inc.

Field Engineer

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Date: 9-9-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Bill Norton, Tom Rountree, Rod Padgett, BECON

Weather: a.m: sunny, NAVY:

93 degrees; p.m.: rain, OTHER: Electrical contractors

lightening

Work Performed / Corresponding Sections of BEI Work Plan

- Started dumping Building 101 concrete on previously stabilized cells
- Added lifts to berm extension at NW corner of pond.
- Worked on stabilization unit and CAT 235

Sampling/Testing Performed

Compaction testing done on lifts added to berm extension, as well as lift 2, which failed compaction testing prior to delay of work in June

Deviations from Work Plan / Rea	son for Deviation and	Documentation of Approv	al
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None

Photographs/Video Documentation

None

Comments

ibmitted by:

ABB Environmental Services, Inc.

Field Engineer

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Date: 9-5-96 ON-SITE PERSONNEL

ABB-ES: Erin Allen, Fred Bragdon, Adib Rahounji

Project No.: 8587.41 BEI: BECON, Bill Norton, Trent Rogers, Rod Padgett, Bechtel personnel from Cecil Field

Weather: cloudy, NAVY: humid, 90 degrees OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Building 101 soil spread in cell 6/7. Tines of stabilization injectors inserted vertically into Building 101 soil and sediment in 5 locations to probe thickness of the mixed material.
- Sample of mixed sludge/sediment/Building 101 soil collected to determine density
- Pond water and cement slurry run through injectors. Problems with stabilization unit and hydraulics on CAT 235 postponed stabilization of cells 6/7
- Soil added to incomplete portion of dike near chlorine contact chamber. Three lifts were placed prior to delay of work in June. The first
 lift passed and other two failed. E. Allen reminded BEI that if they add lifts and any of the prior lifts still fail, the portion of the dike will
 have to be redone.

Sampling/Testing Performed

oundings of Building 101 soil/sludge thickness in cells 6/7

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-7 (roll 7) CAT spreading Building 101 soil in cell 6, prior to stabilization. (W<E)

Comments

Approximately 440 cubic yards of Building 101 soil were added to cells 6/7

ibmitted by:

BB Environmental Services, Inc.

My 6.198

Field Engineer

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ABB-ES Al Project No.: 8587.41 Bl Weather: pt. sunny, N.	-SITE PERSONNEL BB-ES: E. Allen EI: BECON, Eddie Najmola, F AVY: IHER:	Rod Padgett, Trent		
Work Performed / Corre	sponding Sections of BEI	Work Plan		
Preparation of site for base-issue	nd Class II hurricane watch			
Sampling/Testing Perfort	ned			
None				
70. 17.				
Deviations from Work Pla	an / Reason for Deviation	and Documentation o	of Approval	
None				
Photographs/Video Docur	nentation			
None				
_				
Comments				
·				
ibmitted by: ABBEnvironmental Services, I.	nc.		COPIE	S TO: Project File ROICC
ield Engineer				





Date: 9-3-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: BECON, Rod Padgett, Trent, Bill Norton

Weather: pt_sunny,

NAVY:

90 degrees, hurricane

OTHER: surveyors, JAX fire dept.

warning

Work Performed / Corresponding Sections of BEI Work Plan

Dewatered cell 6/7

- Surveyed stockpiled soil from Building 101, to determine volume
- Welded cracked injector tine on stabilization equipment
- Began addition of Building 101 soil to dewatered cell 6/7
- Tied down light equipment and supplies on site for a base-issued hurricane warning

Sampling/Testing Performed

bundings performed in cell 6/7 to determine thickness of sludge. Fifteen soundings were done. Thickest sludge was 2.2 feet.

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Photographs/Video Documentation

P-5 (roll 7) Cell 6/7 area, dewatered; south of exposed cell 5, which was previously stabilized. (SW<NE)

P-6 (roll 7) Addition of Building 101 soil to dewatered cell 6/7 area. (S<N)

Comments

Rod Padgett raised question regarding soundings procedure for sludge thickness. He suggested the possibility of doing soundings across remainder of pond at once, rather than cell-by-cell. E. Allen suggested sludge thickness may vary slightly once water structures are in place. May ask Jane Mears for her opinion at next QC meeting.

ibmitted by:

BB-Environmental Şegvices, Inc.

mn Call

Field Engineer

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Date: 8-29-96 ABB-ES			
Project No.: 8587. Weather: cloudy,	41 BEI: B	ECON, Rod	Padgett
degrees	SENSE SELECTION AND DESCRIPTION OF CONTRACTOR OF COLUMN		
		3: C 4	

Work Performed / Corresponding Sections of BEI Work Plan

- Water pumped from cell 6/stabilized cell 5 area
- Eastern finger of land shaped to give sides a slope angle which will allow easier access to cells

None

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

None

Photographs/Video Documentation

None

Comments

Cell 6, the area directly south of stabilized cell 5, may actually be denoted as cells 6 and 7, although there is not a water structure separating them. The area is approximately 75 feet wide, so it would be divided into two 'cells' for continuity of sampling procedures and cell size.

Submitte						
BB-Em	wonm	ental	Serv	ices.	Inc	
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			<u> </u>	<u> </u>	e vengood	99 c.
Field Fro	ллеет					89.

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Date: 8-28-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: Trent, BECON, Tom Rountree

Weather: 92 degrees, pt. sunny, humid NAVY: OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Installation of 6-foot bladder
- Installation of liner in second modular tank completed
- Asphalt placed over cut in road made to bury conveyance pipe to FOTW
- Western finger of land graded to reduce slope on sides, for easier access to cells

Sampling/Testing Performed

None

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

None

Photographs/Video Documentation

None

Comments

Water in first modular tank, from rain and regenerating ion beds in treatment skid, was sampled by T. Rountree and Trent on Tues., 8-27

Submitted by:

3B Environmental Services, Inc.

Field Engineer

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Date: 8-27-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEI: BECON, Rod Padgett, Bill Norton, Tom Rountree

Weather: sunny, 90

NAVY:

degrees

OTHER: Electrical contractor

Work Performed / Corresponding Sections of BEI Work Plan

- Delivery of cement to fill storage tanker and hopper on stabilization unit.
- Geofabric lining and plastic lining installed in second modular tank; plastic lining not yet secured.
- 6-foot water structure rolled up and prepared to be installed approximately 70 feet south of the southern edge of stabilized cell 5. The water in cell 6 and the water on the surface of cell 5 will be pumped off prior to stabilization of cell 6.
- A hose was hooked up to the tee-off from the base water supply, to be used for clean-up around the stabilization unit.

Sampling/Testing Performed

None

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

None

Photographs/Video Documentation

P-4 (roll 7) Wooden braces built to keep slurry line and hose from pond out of the mud near stabilization unit

Comments

9-foot water structure installed at southern end of middle leg of pond was fabricated with two outer geofabric casings and three sideby-side inner plastic bladders

Submitted by:

3B Environmental Services, Inc.

Field Engineer

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Date: 8-26-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Fred Bragdon

Project No.: 8587.41

Weather: humid, 90

BEI: Tom Rountree, Rod Padgett, BECON

degrees, light afternoon

NAVY: none OTHER:

rain

Work Performed / Corresponding Sections of BEI Work Plan

- Finished filling 9-foot bladder installed on 8-22, with pond water.
- Fabrication of 6-foot bladder to be installed south of cell 5, which was stabilized in June and is presently covered by pond water
- Delivery of PVC pipe to connect conveyance line to treatment skid

Sampling/Testing Performed

None

beviations from Work Plan / Reason for Deviation and Documentation of Approval

None

Photographs/Video Documentation

P-3 (roll 7) Foreground: 9-foot water structure installed at s. end of middle leg of pond. Background: Material brought to site from excavation at Building 101, covered with plastic to minimize blowing. Material includes concrete, rebar, and soil. (S<N)

Comments

Chlorine contact chamber has beed drained for some work inside the chamber. F. Bragdon suggested to BEI that it might be an ideal time to excavate and rework the portion of the dike around the contact chamber, because when it is full, water flows from the chamber through the sleuce gate.

bmitted by:

BB-Environmental Services, Inc.

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Date: 8-22-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen

Project No.: 8587.41

BEL Bill Norton, Rod Padgett, BECON

Weather:sunny,

NAVY: None

humid, 90 degrees

OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

- Pressure test completed for PVC conveyance pipe from water treatment skid to FOTW
- 9-foot water structure installed at southern end of middle leg in pond

Sampling/Testing Performed

None

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

Inveyance piping to FOTW pressure tested at 39-42 psi for about 7 hours, rather than at 50 psi for 2 hours, as stated in the BEI Work Plan. This modification does not affect RCRA closure. Rod Padgett said he will prepare a memo for weekly meeting on 8-29, summarizing the pressure and time actually used for pressure testing of the line.

Photographs/Video Documentation

P-2 (roll 7) Tanker brought on-site to hold an additional 100 tons of dry cement, for stabilization. (NW<S)

Comments

- There is standing pond water on top of stabilized cell 5, as bladder separating it from the rest of pond burst during delay in PSC 42 activities. The cell will be sampled from the surface, to a depth of 1 foot, to insure that it is not contaminated.
- Concrete from Building 101 is currently stockpiled on-site. The material underwent gross decontamination before transfer to PSC 42. The concrete will be place on top of stabilized cells. Soil from Timuquana Country Club will be used to fill around the concrete.

Submitted by:

BB-Environmental Services, Inc.

<u>_/w C. Alle</u> Field Engineer COPIES TO:

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Date: 8-21-96

ON-SITE PERSONNEL

ABB-ES

ABB-ES: Erin Allen, Don Haumann

Project No.: 8587.41

BEL Bill Norton, Tom Rountree, Rod Padgett, BECON

Weather: 88 degrees,

NAVY: None OTHER:

Work Performed / Corresponding Sections of BEI Work Plan

sunny, breezy OTHER

- Putting together water structures. Some of the water structures being fabricated have been redesigned by the manufacturer, with two
 outer geofabric casing, a band along the bottom seam, three inner bladders on the nine-foot structures, and fabric bands around the
 circumference of the six-foot structures. The redesign is intended to prevent the bladders from slipping or rolling.
- · Second modular tank is complete, except for liner
- The 3-inch PVC conveyance pipe from the treatment skid to FOTW was filled with water, in preparation for pressure testing

Sampling/Testing Performed

none

Deviations from Work Plan / Reason for Deviation and Documentation of Approval

• Buried portions of conveyance pipe from treatment skid to FOTW were buried to depth of 12 inches, rather than 18 inches, as stated in Bechtel Work Plan. This modification is not pertinent to RCRA closure of the site.

Photographs/Video Documentation

none

Comments

- Tom Rountree located analysis done on P-3 hangar soils used for dike soils were analyzed for RCRA metals only
- 3"PVC conveyance pipe from treatment skid to FOTW is about 2200 feet long
- Tom Rountree said he will have analytical data requested by ABB w/e 8-16-96 for the weekly meeting on 8-22-96

Submitted by:

BB Environmental Services, Inc.

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Field Engineer



Construction Oversign	11, 1 SC 42 - Ser pentine 1 ond
Date: 8/20/96 ON-SITE PERSONNEL ABB-ES ABB-ES: Erin Allen Project No.: 8587.41 BEI: Tom Rountree Weather: 92 degrees, NAVY: Bill Raspet breezy, pt. cloudy OTHER:	
Work Performed / Corresponding Sections of BEI V	Vork Plan
Bechtel continuing to put in conveyance piping from treatmer	nt skid to Public Works
Bechtel continuing to fabricate water structures	
Sampling/Testing Performed	
None	
l eviations from Work Plan / Reason for Deviation a	nd Documentation of Approval
None	
Photographs/Video Documentation	
None	
Comments	
Submitted by: BB Environmental Services, Inc. Figure C. C. C. Field Engineer	COPTES TO: Project File ROICC





Date: 8/19/96 ON-SITE PERSONNEL

ABB-ES: Erin Allen

Project No.: 8587,41 BEI: Tom Rountree, Steve SantaMaria, BECON

Weather: humid, 90 NAVY: None degrees, breezy, pt. OTHER:

cloudy

Work Performed / Corresponding Sections of BEI Work Plan

Fabrication of second modular tank

• Installation of 3" PVC pipe from treatment skid to base Public Works. The pipe will be above ground, except where it crosses roads, and at the treatment plant, where workers drive and park cars. In those places, pipe will be buried to 1 foot bls.

Sampling/Testing Performed

None

eviations from Work Plan / Reason for Deviation and Documentation of Approval

None

Photographs/Video Documentation

P-1 (roll 7) Conveyance piping from treatment skid to PWC, buried to 1 foot bls. at treatment plant (W<E)

Comments

After June 13, Bechtel delayed work at PSC 42 to respond to a time-critical soil removal at Building 101, in the NADEP area of NAS JAX. They resumed work at PSC 42 on Monday, August 12. During the interim, a few activities continued at PSC 42, including the following:

- Roll-off's C25170D and C25198D were removed from site. E. Allen called Jane Mears on 8-19-96 to request the manifests for that waste.
- The treatment skid was set up at the south end of the site; has not yet been tested
- A tanker truck was brought on-site, for storage of 100 tons of dry cement, in addition to the 30-ton capacity of the hopper on the stabilization unit. The extra cement storage will allow for more continuous stabilization

bmitted by:

BB-Environmental Services, Inc.

1/w C-aller

Field Engineer

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Project File ROICC

Construction Oversight, PSC 42 - Serpentine Pond copies to: ROICC X FILE X

ABB Representatives (on -site)	Date:
Erin Allen	6-13.96, Thursday
Bechtel Superintendent: (on -si+e)	U.S. Navy Representatives: (on-site)
Bill Norton Hermann Bauer. Steve Santa Mana Mike Omelko	Larry Blackburn
1. New Site Activities	Corresponding Sections of Work Plan
1. Stabilization of cell 5 completed. (western edge) 2. Strength sample collected from cells, Tellialso collected 3. Compaction test performed on first 3 lifts of dike continuation around chlorine contact chamber. 2nd lift failed compaction. likely due to	
wetness. Will be refested 6-17-96	
. Ongoing Site Activities	Corresponding Sections of Work Plan
Rainwater pumped off stabilized cells	
Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none noted.	
Photographs/Video Documentation	Additional Issues
none	BEI asted E. Allen on 6-12-96 whether they could discontinue soundings in stabilized makerial, and use thick marks on injector three as only means of visual verification for stabilization depth. E. Allen and BEI feel tick marks are more accurate, as sounding red may his sticks, dumps of residual, soil, etc. and there may be heaving eards at base of cells. E. Allen discussed heaving eards at base of cells. E. Allen discussed
S	heaving eards at base of cells. E. Allen discussed the matter with Jane Mears to get regulatory perspective. Jane agrees that visual inspection using injection man, is a

Construction Oversight, PSC 42 - Serpentine Pond copies to: ROICC X FILE X

	· · · · · · · · · · · · · · · · · · ·
ABB Representatives: (on · site)	Date:
Erin Allen	6-12-96, Wednesday
Bechtel Superintendent: (on -site)	U.S. Navy Representatives: (on -siTe)
Bill Norton Steve Santa Maria Herman Bauer Mike Omelko Tom Rountree	Diane Lancaster, with other Navy personnel and employees of City of Jacksonwill
1. New Site Activities	Corresponding Sections of Work Plan
1. Stabilization of Cell 5 - stabilization unit ran out of cerent, so small portion on west side of cell will be stabilized Thurs. 6-13-96. Soundings performed towerity 2. Collected rain water pumped off stabilized cells 1 to 4.	
3, Hose to one injector time blew off when water was pumped through slurry line, due to clogged time. Fixed by SEI.	
2. Ongoing Site Activities	Corresponding Sections of Work Plan
1. A second roll-off has been delivered to the site - C25198D 2. Cell 5 dewatered, following rain that added water back to cell on Tues. afternoon 3. BEI surveyed elevations of stabilized material in cells 1,2,3,4,11,11,31	
Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none noted	
	dditional Issues
rain water off stabilized cells a	rpth soundings in cell 5 were conducted wring week of 6-3-96. Thickest sludge in cell 5 was 1.3 foot.

Construction Oversight, PSC 42 - Serpentine Pond copies to: ROICC __Y__ FILE _X___

Exercise 1 to 1 t	
ABB Representatives: (on site)	Date:
- E. Allen	
	6-11-96, Tuesday
Bechtel Superintendent: (on site)	U.S. Navy Representatives: (on-site)
Bill Norton	none
1. New Site Activities	Corresponding Sections of Work Plan
· · · · · · · · · · · · · · · · · · ·	
1. 3-Foot bladder installed adjacent to bladder 6 (a 6-footbladder) in its southern side, for more stability 2. Cell 5 dewatered (Rain in late afternoon added water back to cell 5).	
2. Ongoing Site Activities	Corresponding Sections of Work Plan
. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
nore noted.	·
Photographs/Video Documentation	Additional Issues
h one	Site muddy, due to rain over the weekend; standing water on cells previously stabilized.

Construction Oversight, PSC 42 - Serpentine Pond copies to: ROICC / FILE X

ABB Representatives: (on -site)	Date:
FRED Bragdon	
Don Haumann	6-10-96, Monday
Bechtel Superintendent: (on wite)	U.S. Navy Representatives: (on -site)
Bill Norton	Diane Lancaster (FEP)
1. New Site Activities	Corresponding Sections of Work Plan
1. Sampling for TCLP analysis in cell 34 stabilized 6-6-96. Samples Collected by hand auger. 3 samples collected, and composited. 2. BEI sampled Timaguana soil-preferred backfill makerial. 4 composite (3 grab samples each) were collected.	;
Samples will be analyzed for voc, svo and metals. 3. Sampling of PSC41 stabilized makriot. 4. First lift of soil placed for completion of alternound chloring confact changer. 2. Ongoing Site Activities	
	Corresponding Sections of Work Plan
7. Installing, fabricating water structure	
Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none noted.	
·	
	Additional Issues
	Chosen sampling technique for Timaquene soils was per discussion and agreement between D. Hammann, Diane Lancaskr and Bill Norton. E. Allen spoke with FDEP regulator on 67-96 and confirmed no regulatory quilden for sampling soil

Construction Oversight, PSC 42 - Serpentine Pond copies to: ROICC FILE X

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ABB Representatives: (on-si-k)	Date:
Erin Allen	1101 = 1
Fred Bragdon	6-6-96, Thursday
Bechtel Superintendent: (on-site)	U.S. Navy Representatives: (on-site)
Bill Norton Steve Santa Maria	none
1. New Site Activities	Corresponding Sections of Work Plan
1. Stabilization of cell 31; collection of strength sample	WP 3.3.4 and Summary of Sludge! Sediment Sampling Plan.
2. Bladder 5, installed adjacent to bladder with geofabric failure, rolled northward will be pulled out and re-installed	'
3. Mixed grout/soil placed over concrete pipe to chlorine (onfact chamber	
2 Occaring Site Agili ilian	Companying Sections of Work Plan
2. Ongoing Site Activities	Corresponding Sections of Work Plan
•	
B. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none nokd.	
	·
	Additional Issues
-13 (roll6) stabilization of cell 3A (EGW)	

DAILY SITE VISIT Construction Oversight, PSC 42 - Serpentine Pond copies to: ROICC FILE FILE

ABB Representatives: (27,-5/2)	Date:
Erin Allen	6-5-96, Wednesday
Bechtel Superintendent: (on - sita)	U.S. Navy Representatives: (m - sitz)
Bill Norton Eddia Najmola Mike Omeko	none
1. New Site Activities	Corresponding Sections of Work Plan
1. Geotextile outer tube on bladder 5 split. Another bladder installed, edject to bladder 5 to the south. The split bladder will be removed, prior to stabilization of cell 5. 2. Cells 3A and 5 dewatered. 3. Installation of 4-inch water line, from tee off of base water line to stabilization unit. Placed underground. Will provide back-up water to stabilization unit in case a pump from pond water fails. Will also provide deem. water at stabilization unit. 2. Ongoing Site Activities	
1. Time on injector welded to repair a crack at base. This is same time that has been welded previously. Time is slightly displaced.	
Deviations from Work Plan	Bosses for Davieties/Decumentation of Approval
none noted.	Reason for Deviation/Documentation of Approval
	Additional Issues
9(1016) Cell 34, prior to dematring or	
10 (rollb) Cells 3 and 2A, afterstabilization and sampling -11 (rollb) Bladder 5, after geofabric split.	
12 (rolls) Installation of water line to stabilization	

Construction Oversight, PSC 42 - Serpentine Pond

		-
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	·
ABB Representatives: (on-site)	Date:
Don Haumann	6-4-96, Tresday
Bechtel Superintendent(on - site)	U.S. Navy Representatives: (on -siTe)
Bill Norton Steve Santa Mana	none
1. New Site Activities	Corresponding Sections of Work Plan
1. Depth soundings performed in culs 34 and 5 to determine thickness of sludge.	
	De di se di Dice
2. Ongoing Site Activities	Corresponding Sections of Work Plan
1. Continue moving water Structures to establish next Series of ceels for stabilization	Appendix E and WP sec. 331
, Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none noted	
Photographs/Video Documentation	Additional Issues
none	Bechtel plans to sample material at PSC41 tomorrow. This material will be broken up and placed on stabilized material at PSC42 prior to hact filling

Construction Oversight, PSC 42 - Serpentine Pond copies to: ROICC FILE

	Date:
ABB Representatives: (on-site)	
Erin Allen - Fred Bragdon	6-3-96, Monday
Bechtel Superintendent: (on -site)	U.S. Navy Representatives (on -sife)
Bill Norton Tom Rountree	None
1. New Site Activities	Corresponding Sections of Work Plan
1. Sampling of Stabilized material in cells 4 and 2A. (ABB was not present) Somples collected by hand auger, for TCLP analysis.	5.2.4 and Summary of Sludge / Sediment Sampling Plan
2. Contractor for PWC sampled roll-off C25170 D.	4.0
3. Draining water structures and re-installing them to create another series of contecutive cells for stabilization	Appendix G
2. Ongoing Site Activities	Corresponding Sections of Work Plan
3. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none	
4. Photographs/Video Documentation	Additional Issues
none	

Construction Oversight, PSC 42 - Serpentine Pond copies to: ROICC FILE

ABB Representatives: (on - g/h)	Date:
Erin Allen Brian Johnson	5-30-96, Thursday
Bechtel Superintendent: (on site)	U.S. Navy Representatives: /on-site)
Bill Norton Eddie Najmula Tom Rountree Hermann Bauer	Diane Lancaster Bill Daugherty
1. New Site Activities	Corresponding Sections of Work Plan
1. Performance of studge Lighth soundings in cell 4. (Top Elevation of studge Not surveyed) 2. Bladder 2 drained and removed 3. TCLP samples collected from cell 3. Numb of samples taken reduced to 3, which is sufficient 4. Cells 4 and 2A stabilized. (E. Allen +3 Tohnson do not believe studge depth soundin were done for cell 2A.) 5. Strength samples collected from cells 4 and 2A. BET attempted to collect TCLP sample from cell 4, but no recovery. But cells will be so	wp 3.3.4 wp 3.3.4 wp 5.2.4 and Summary of Studge / Rediment sampling plan moled Monday June 3.
2. Ongoing Site Activities	Corresponding Sections of Work Plan
3. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none noted.	Additional Issues
Photographs/Video Documentation	Additional Issues
P-blosse) Collection of sample 3, cell 3. P-7(roll6) Composite of samples 1,2,3 in cell 3. P-8 (roll6) Stabilization of cell 2A.	Strength Samples collected from all 3 on 5.2196 sitting on decon. pad, not labeled, not protected. Converte pipe leading to chlorine contact chamber has now yet been grouted.

Construction Oversight, PSC 42 - Serpentine Pond copies to: ROICC ____ FILE ____

ABB Representatives: (on site)	Date:
Eria Allen Adib Rahounji	
Brian Johnson	5-29-96, Wednesday
Fred Bragdon	
Bechtel Superintendent: (un site)	U.S. Navy Representatives: (en-Site)
Bill Norton	rone
Frank Cakr	}
Tom Lountree	
1. New Site Activities	Corresponding Sections of Work Plan
1. Maintenance on alternator for stabilization unit generator	
2. Cell 4 dewatered	WP 3.3.2
3. Frank Caker, Brian Johnson, Bill Norton discussed ABB's comments on the	WP3.1
treatability study done by ENRECO. ABB feels report was missing some pertinent data. Brian Johnson also expressed concern about integrity of rip-rap spillway	ωP 3.6.1
2. Ongoing Site Activities	Corresponding Sections of Work Plan
12. Completion of cell 3 stabilization.	
2. Soundings performed in cell 3 to Verify depth of stabilization	
3. Strength samples collected from cell 3. Becon withdinitially scooped stabilized makerial with their hands while performed depth soundings, to fill molds for strength samples. E. Allen informed them this was not acceptable and asked them to collect 3 backhoc samples and composite them. Bet concurred and re-collected samples	
3. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
None noted.	
4. Photographs/Video Documentation	Additional Issues
P-5 (1016) Cell 4, dewatered.	Arsinic, rather than silver, values reported on TCLP analysis for cell I—caused by mistype on list of parameters to be reported. This was noted by Bechtel, and labis sending silver values.

Construction Oversight, PSC 42 - Serpentine Pond

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copies to:	ROICC		FILE

ABB Representatives: (on - srt2)	Date:
Erin Allen Brian Johnson	
Fred Bragdon	5-28-96, Tuesday
Don Haumann	
Bechtel Superintendent: (on-site)	U.S. Navy Representatives: (on-site)
Tom Rountree	Larry Blackburn
Bill Norton	
1. New Site Activities	Corresponding Sections of Work Plan
1. Cell 3 dewatered. Soundings performed to determine shudge thickness. Elevation of sludge in cell 3 not surveyed. 2. Cell 3 stabilized. Sludge/sediment from above correcte pipe to chlorine emtad chamber was incorporated. Stabilication of cell 3 not completed due	WP 3.3.4
to thundustorms and lightning in	
afternoon.	j.
1 10000	
2. Ongoing Site Activities	Corresponding Sections of Work Plan
2. Origonia Otte Activities	
3. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
Hore noted.	
	}
	ļ
w.	•
. Photographs/Video Documentation	Additional Issues
2-3 (10116) Cell 3, dewaked, in preparation	ABB discussed sampling of Timaquana
for stabilization.	soils, as a possible cover makrial for
	PSC42. Will be discussed further after
Cell 1A, 6 days after stabilization	checking applicable guidetines.
in to oays agree stante agree	J "

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	1
ABB Representatives:	Date:
Erin Allen	5-22-96, Wednesday
Bechtel Superintendent:	U.S. Navy Representatives:
Bill Norton Steve SantaMaria Mike Emelka	none
1. New Site Activities	Corresponding Sections of Work Plan
1. Stabilization of area between cells land 2, where bladder I was removed. Soundings were performed prior to stabilization to determine depth of sludge. Thickest sludge was 1.2 feet. Rope stretched across area, marked at 5-foot increments, for horizontal control of soundings. Sample of mixed sludge/sediment collected to defermine mud weight. At least 2-foot overlap was achieved with cells 1 + 2. Soundings were performed, from a boad, in stabilized material to verify sufficient depth of stabilization.	
	Corresponding Sections of Work Plan
1. One 50,000 gal. modular tank for water treatment system completed. 2. Partiferented area around concrete pipe leading to chlorine contact chamber was stabilized. Concrete pipe was pressure wested after native soil around it excavated linches below original level. Grout has not yet been blown over concrete pipe.	
. Deviations from Work Plan	eason for Deviation/Documentation of Approval
hone noted.	
Photographs/Video Documentation Ad	Iditional Issues
-20 (rolls) Pint substance floating on water in excaveted	E. Allen asked BEI if they plan to take Samples from the stabilized areas between Cells, Where bladders were situated, and BEI said Eamples will be taken in those areas for strength and TCCP analysis

Construction Oversight, PSC 42 - Serpentine Pond copies to: ROICC _____ FILE ____

)	,	
	ABB Representatives: (on -site)	Date:
	Erin Allen Fred Brogdon	5-21-96, Tuesday
	Bechtel Superintendent:(のn-sitz)	U.S. Navy Representatives: (on - site)
	Bill Norton Steve Santa Maria Tom Rountree	none
ŀ	1. New Site Activities	Corresponding Sections of Work Plan
	1. Spillway in berm lined with rip- rap material. (The rip-rap is not from the P-3 hangar. This material had been removed, by the time Bechtel went to retreive it, so the rip-rap	WP Ser. 36.1
	was purchased by BEI, from off thebas 2. Bladder between cells I and 2 drains 3. Soil excavated around concrete pife	d. ωρ sec. σ.σ.
	leading to chlorine contact chamber, to prepare for stabilization. (See Additions Issues).	
12	1. 3 Samples of Stabilized making from cell 2 collected by hand auguring, for TCLP analysis. Ongoing Site Activities	Corresponding Sections of Work Plan
F	1. Liner being placed in 50,000 gal. Modular tanks for water treatment System	
2	P. E. Allen and F. Bragdon compared preliminary analyticals for soil from £P.3 hangar used for dike with base backgrown levels and MCG's. There were hits of Crand Pb in the soil sample, but hits, were within basewide background and/or MCG limits.	WP Sec. 5.2.3
	ABB received draft technical memorandeum and bench scale results from BEI on May 16, 1996.	WP Sec 3.1 and ABB Design Specifications
	Deviations from Work Plan I's Summary of Studge/Sediment Sampling	Reason for Deviation/Documentation of Approval
PI Fo	on indicated that TCLP samples (except) r cull) would be collected with a lit soom. Stabilized material in cull Z	The samples were collected, despite the variance in method. No jeopardy to design Intent, as long as TCLP passes.
be to	ad hardened enough that samples had to collected by hand auguring. Due to be difficulties collecting the TELP sample in le 3 after stabilized makrial was hard nough to walk on, BET has decided to sample nough to walk on, BET has decided to sample	Three samples were taken, rather than 5 as specified in BEI's Summary of Sludge/Schimen Sampling Plan. Only 3 semples are actually required, according to BEI Work Plan and ABB species, so this is acceptable.
<u>. </u>	hotographs/Video Documentation	Additional Issues
15 (17)	(10115) liner being placed in 50,000 gal. Mod tank (10115) 3 samples collected for TCLP and from CU12. (10115) Exposed concrete pipe, leading to chloring contact. (10115) Bladder I being drained (10115) Spillway at SE and of dike lined with rip-rap	Native soil, light gray time sand, war encountered along concrete pipe leading to chloring contact chamber. Native soil was at level of top of pipe in N. side and about 4" below top of pipe in S. side. BEI plans to excavate native soil 18, then blow grout to surround and cover the pipe. The sludge/sediment from around the pipe will be deposited in areas yet to be stabilized. The pipe will be pressure washed
		rior to Euro growled. ABB concurs with this plan.

P-18 (10115) Native soil exposed along concrete pipe P-19 (10115) Bladder 1. almost completely drained,

ABB Representatives: (on-site)	Date:
Erin Allen	5 20.01 11
Fred Bragdon	5-20-96, Monday
Don Haumann Bechtel Superintendent: (on -ste)	U.S. Navy Representatives: /on-site)
Tom Rountree	
Bill Norton	none
1. New Site Activities	Corresponding Sections of Work Plan
1. Rip rep material that will be used to line spillay brought to site and piled at SE end of site.	WP Sec. 3.6.1
2. Ongoing Site Activities	Corresponding Sections of Work Plan
1. Fabrication of one of the 50,000 gel. modular tanks for treatment unit continuing. 2. Welding done on injector time that	WP Sec. 4.0 WP Sec. 3.2.3 and 3.3.4
has cracked. 3. One sample (for TCLP) was collected from cell 2. There were difficulties collecting sample due to stiffness of stabilized material and trouble with sampling apparatus. Due to time constraint, collected sample was dumped back into cell, and five new samples will be collected on 5-296	WP Sec. 5.2.4 and Summery of Studge/Sediment Sampling Plan for PSC42
. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none noted.	·
	Additional Issues
P-11 (roll 5) Cell 2: after BET has walked on surface, 4 days after stabilization. (WXE).	Note: Rolls of film previously developed were misnumbered. Corrections have been made in log book and on photos.

ABB Representatives: (cn < ih)	Date:
Erin Allen	5-16-96, Thursday
Bechtel Superintendent: (on-site)	U.S. Navy Representatives:(on-site)
Bill Norton Tom Rountree. Eddie Najmela Steve Santamana	none
New Site Activities	Corresponding Sections of Work Plan
1. Cell 2 stabilized.	WP Sce. 3.3.4
2. Sample collected with backhoe (from all 2) for unconfined compressive strength tests	ا
2. Ongoing Site Activities	Corresponding Sections of Work Plan
I. Time on injector welded to repair cracked area at base, and a brece welded between cracked time and adjacent time.	WP Sec. 3.2.3
	Reason for Deviation/Documentation of Approval
Sampling procedure changed. See weetly meeting minutes for 5-16-96 and "Additional issues" below. Change agreed upon by ABB, Roice, Bechtland FED.	Memo for documentation will be produced by Bechtel. (WP Sec.
Photographs Alideo Documentation	Additional Issues
	Decision made during weekly meeting with 468.
9 (nolls) Stabilization of all (NE ASW)	FED, ROICE, and Bechkl to collect strength test Samples on the day of stabilization with a bechoo; and to collect TCLP samples with a split spoon after stabilized material is safe to walk on. Exchkl will follow up with a memo, for documentation

Construction Oversight, PSC 42 - Serpentine Pond copies to: ROICC \(\frac{\text{\text{\text{KOICC}}}{\text{\text{\text{FILE}}}\text{\text{\text{\text{\text{KOICC}}}}}\)

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ABB Representatives:	Date:
Erin Allen Don Haumann	5.15.96, Wednesday
Bechtel Superintendent: (on-site)	U.S. Navy Representatives: (on-site)
Bill Norton Hike Emelka Tom Roundtree Steve Santa Maria	F.ed.
1. New Site Activities	Corresponding Sections of Work Plan
1. Stabilization of about 20% of cell 2. Stabilization stopped due to cracked time on injectors (same time that cracked Fri, May 10). Time welded and pulled back to correct alignment.	ωρ sec. 3.2.3
2. Water is hooked up to trailer.	WP Scc. 5.1.3
2. Ongoing Site Activities	Corresponding Sections of Work Plan
1. 50,000-gal. modular tank being fabricated on compacked soil at SE end of Site. 2. Sample collected from cell 2 of mixed sludge sadiment for density measurement, collected by backhoe. 3. Deviations from Work Plan None noked.	
4. Photographs/Video Documentation	Additional Issues (Photos, cont.)
P-1(10116) Modular tank being installed at SE end of site. P-2(10116) Cell I, Sdays after stabilization (swape)	P-5(roll6) Backhoe collecting sample of mixed studge/sediment from cell2 (NWQS)
7-3 (roll6) Dewatering of CeU 2 (NW&S) P-4 (roll6) Gap between stabilized material in cell I and first, bladder.	P-7(1216) Cracked fine on injector.

ABB Representatives: (on -si+e)	Date:
Erin Allen	5-14-96, Tuesday
Bechtel Superintendent: (on-si+e)	U.S. Navy Representatives: (on-site)
BIII Norton Steve Santa Maria Tom Roundfree Hike Emelka Herman Bauer	FED: Diane Lancaster, Jane Mears, and others.
1. New Site Activities	Corresponding Sections of Work Plan
2. Ongoing Site Activities	Corresponding Sections of Work Plan
1. Soil being spread at SE end of cite, for base for water treatment skid and modular tanks 2. New bladder (to replace one of the bladder which failed) arrived on site, fabricated, and installed as bladder 2.	WP Sec. 4.0, Sec. 3.4 WP Sec. 3.3.1 and Appendix G
3. Times on injector were welded to fix the cracked area on one time, and to better secure the others to the bracket which connects them.	WP Sec. 3.2.3
4. Bechtel performed depth soundings for CeU 2; thickest sludge was about 3.3 feet.	Design Spec. 02248 + 5h. 1.5(b) and Summary of Sludge Sediment Sampling Plan for Pocus
3. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none noted	
. Photographs/Video Documentation	Additional Issues
none	Diane Lancaskr, FED, called Evin Allen to discuss submittals needed by ABB from Bechkl: bench scale results, technical memo.

ABB Representatives: (on-sitc)	Date:
Erin Allen	
Adib Ranounii	5-13-96, Monday
Bechtel Superintendent: (On-site)	U.S. Navy Representatives: (0n-si4e)
Bill Norton	none
Tom Roundtree Stere Santa Maria	
1. New Site Activities	Corresponding Sections of Work Plan
1. Dike surveyed by Are surveying.	ωρ (ε.ε 2.5
12 Parts delivered to site for fabrication of 2-50,000gN	7. I
modular tanks for water treatment unit.	WP Sec. 3.4
3. ABB asked Bechtel to provide results of burch Scale test, and technical memo detailing	WP Sec 3.1 and Spic. 01010
A = A + A + A + A + A + A + A + A + A +	
will provide these about the	
of the day. Tues. May 14. 4. Soil spread at St and of site, for a stable,	
	ωρ Scc. 3.4
I wild and human	
5. One time on the injector unit cracked wilder during stabilization of CULL It will be wilder	. NP Q 63.3.4
6. Second bladder away from chlorine contact charater failed. The bladder rolled as cul 2	
2. Ongoing Site Activities New site activities, cont.	Corresponding Sections of Work Plan
Was being dewatered, and failure occurred	Corresponding Occilons of Work Half
,	
3. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none noted.	
now rose.	
1	
	Additional Issues
P-21 (volls) cell 1 after stabilization	
•	

ABB Representatives:	Date:
Erin Allen	5-10-96, Friday
Bechtel Superintendent:	U.S. Navy Representatives:
Bill Norton Tom Roundtree Eddie Najmola Frank Cater Steve Santa Maria	None
1. New Site Activities	Corresponding Sections of Work Plan
1. Cell I dewatered. Bladder rolled some toward chlorine contact chamber, but this did not seem to effect containment of cell.	WP Suc. 3.3. 2_
2. Sample of mixed studge/sediment collected for	Summary of studge/sediment Sampling Plan for PSC42 and WP 5.2.4
3. Times on injectors markia in the internation of stabilize 6 feet to visually aid in Letermination of stabilize depth, and a line was marked 18-in-from origin pond edge with paint as a guide for boundary of stabilization.	
I statistion of cell I at chlorine contest char	ber. wp Sec. 5.2.4
5. Bechtel backfilled over emergia pipe to contact chamber, because it was below water/sludge level after dewatering cell. BEI will stabilize around pipe by hand after the rest of the cell is stabilized. BEI said they will provide ABB with	
2. Ongoing Site Activities New Site Activities, cont	Corresponding Sections of Work Plan
a mimo explaining the change. 6. Leakage of water into cell was occurring around intake gate to chlorine contact chamber, to BET bout filled around chamber, and will later stabilities.	
That area by hand 7. Sampling of stabilized makinal in Cell I. Five spirt spoon samples collected by boat and Composited for TCLP and strength testing. Mix appeared homogeneous, so some additional Jample was collected with a backhee, so that there would be sufficient material for the required number of specimens. E. Allen suggested improved control on sampling locations in subsequent cells, so that samples of stabilized mix are taken at same location as some of the depth soundings.	Summary of Sludge/sediment Sampling Plan For PSC42 and WP 5.2.4 and WP 6.2.1
Deviations from Work Plan	Reason for Deviation/Documentation of Approval
from a boat cather than a mortile accepted	No necessary documentation. The samples were collected within 24 hrs. of Stabilization, and the sampling platform is not critical.
mande, medically that fife to chamber.	Bechtel needs to provide documentation stating the reasons for backfilling around contact chamber, and their plans to stabilize the area which was backfilled by hand. As long as the cell is stabilized, this change will not affect closure.
Photographs/Video Documentation A	Additional Issues
f-1 through P-20 (roll5): Stabilization and sampling activities for all 1, at chlorine contact chamber.	
contact chamber	·

· ·	
ABB Representatives: (on-site)	Date:
Erin Allen	
	5-9-96, Thursday
Bechtel Superintendent: (on-site)	U.S. Navy Representatives: (un-site)
Eddie Naymola Tom Roundtree	
Bill Norton Hike Enella-	nonc
Skue Santa Maria	
1. New Site Activities	Corresponding Sections of Work Plan
1. Water treatment skild arrived on site. 2. Maniff delivered to site to be used for sampling stabilized makrial in first cell.	ωρ Sec. 3.4
3. Ten depth soundings performed in area of pro- that will constitute first cell, at chlorine contain chamber. Soundings done using PVC pipe marked in 0.1 foot increments. Measurement taken from a boat. Elevation of water at NE and of from a boat.	Plan for PSC 42
from a boat. pond also recorded by Beckel, using a level. Average studge thickniss was about 2 fest. 4. Organic material beginning to float on surface of pond water between bladders.	
Ongoing Site Activities	
Third bladder laway from chlorine contact deader removed from pond, straightened out re-rolled, and re-installed in pond to contain first all, at chlorine contact chamber. This bladder replaces bladder which failed.	
Growkd portion of inlut pipe has hardened. First bladder, which failed disposed into	WP Sec. 2.4
roll-off C25170D, with tru trunks from pond. Roll-off will be disposed as hazardous.	we sec. 4.0
Dovictions from Mark Disc	
Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none noted.	
·	·
	Additional Issues Photographs
(roll4) Pulling inner tubes of bladder through costextile outer tubes with backhoc (croll4) Pumping air into inner tubes of bladder	P-21 (roll4) Organic matter floating on pond water between bladders.
To help show home transfer 17	1 Althorex Issues. E.Aller expression with the
(ro 114) Water treatment skid, on flatbed delivery a truck	additional issues. Earlier apprehen that bludder and Eddie Najmola about displacement of first bludder not allowed your demarking of first cell, if bladder not allowed to settle fir It hours. Bethet first bludder would not lisplace because a) waker wend in pond has dropped a few lisplace 1) sludges because the pond high the control of the second of t

ABB Representatives: (On-site)	Date:
Erin Allen	
Fred Bragdon	58-96, Wednesday
Don Haumann	
Bechtel Superintendent: (on-site)	U.S. Navy Representatives: (Un-side)
Bill Norton Steve SantaMaria	
Tom Roundtree	none
1. New Site Activities	Corresponding Sections of Work Plan
 ::	Corresponding Sections of Work Plan
1. Steve Santa Mana. Erin Allen, Don Haumann meet to discuss sampling procedures to be employed throughout stabilization. Beckel provided a typed Summary of Sludge / Sediment Sampling Plan for PSC 42. Don Haumann signed the plan to give ABB approval. 2. Steve Santa Maria, Eddie Najmola, Erin Allen and Don Haumann discuss incorporation of PSC 41 stabilized makrial into PSC 42.	WP Sic. 5.2.4
Decision was made that PSC41 material will be broken up spread on stabilized material at the first 42 and back tilled over.	
2. Ongoing Site Activities	Corresponding Sections of Work Plan
1. Electrical conduit line in place, trench backfilled; transformer being installed at SE end of site, for water treatment skid.	ώρ sec. 5.1.3
2. Second stage of grouting in let pipe at SE end of pond.	wp sec 2.4
3. Third bladder (away from chlorine contact chamber) being drained; it will be moved and re-filled to replace first bladder, which broke.	WP Sec. 3.3.1 and Appendix G
. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
None noted.	
. Photographs/Video Documentation	Additional Issues
P-16 (roll4) roll-off C25170D filled with logs from pond.	

Construction Oversight, PSC 42 - Serpentine Pond

coples to:	
ABB Representatives: (m-site)	Date:
Erin Allen Fred Bragdon	5-7-96, Tuesday
Bechtel Superintendent: (on-sik)	U.S. Navy Representatives: (on site)
Bill Norton Tom Roundtrec Steve Santa Maria	hone
1. New Site Activities	Corresponding Sections of Work Plan
1. Bladder nearest chlorine contact chamber ruptured since completion of Buchkl work day 56-9. Appears that quotextile split, then inner tubes split. New bladder ordered to site.	WP Sec. 3.3.1 and Appendix Gi
2. Trench dug for electrical conduit for treatment skid; elec line laid in trench	WP Sec. 5.1.3
3. First load of Portland cement delivered for stabilization unit; the line laid on truncher	i '
4. Grouting of inlet pipe at St end of pond begun Some leatage of growt occurred, so Bechke decided inlet pipe will be stage-growted	ωρ Sec. 2.4
Ongoing Site Activities	Corresponding Sections of Work Plan
. Silt fence and hay bales placed around drainage basin at NE edge of pond, its ide force	ωρ Sec. 3.6.1
. Roll-off C251700 has been filled with stumps from pand; will be disposed as hazardous	wp sec-4.0
. Stockpiled soil on east side of pond, blocking futlet for spillway pushed northward, so that any overflow would not be blocked	ωρ Sec. 3-6.1
	·
Deviations from Work Plan	Reason for Deviation/Documentation of Approval
P Sec. 2.4 stakes that inlut loverflow pipe	No effect on RCRA closure; change only
orier to construction of dike.	in construction sequence; no documentate necessary.
hotographs/Video Documentation A	dditional Issues ear Photographs
8 (roll4) first bladder (nearest chlorine Prontact chamber) after quokatile split and	13(roll+) Area in pond about 20 west of inlet pipe, where grout appears to be leaking
	we will sell alled a fame it construite of intel day
inner tubes ruphered (roll 4) Hopper on Stabilization unit being filled with Portland current.	14 (roll 4) Soil piled in front of pond-side of inlet pipe to prevent grout batage from that point

Construction Oversight, PSC 42 - Serpentine Pond

copies to: * Roice * file	
ABB Representatives: (on - sitc)	Date:
Erin Allen Brian Johnson	5-6-96. Monday
Bechtel Superintendent: Con-site)	U.S. Navy Representatives (on site)
Bill Norton	10.0. Wavy Representatives(Dit sile)
Tom Roundtree Sleve Sonta How Tow Est	None
1. New Site Activities	Corresponding Sections of Work Plan
1. Grout line from stabilization unit in place 2. PWC delivered roll-off C25170D to site	wp Section 4.
3. Butile excavated area on SE portion of dike, at presumed location of final co about 20 ket long. I foot deep for Spillway	W. W. Sec. 2.5, Sec. 3.6.1
4. Additional pond water pumped into first and second bladder, to get them more full, allow for additional freeboard. First bladder (nearest chlorine contact than	WP Sec. 3.3 / Appendix 19
bulging from center in N+S directions. 5. Holes chiscled in concrete inlet pipe at SE end of pond. One hole if for grout injection; second held is for insertion of drum linux filled with sand to plug	E WP Sec. 2.4 pipe.
2. Ongoing Site Activities	Corresponding Sections of VVork Plan
1. Third water structure kund into dite at NW and of youd, and titled with pend w	ω_1 . $\omega_1 = \omega_0$., ω_1
2. Compaction test on fifth (final) lift of ber	m wp Sec. 25
3. Haybalis and silt find placed around inlet pipe basin at SE end of pond.	WP Sec. 3.6.1
Davidson Com Mark Dis-	Day of Approval
. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
None noted.	
•	
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Photographs/Video Documentation	Additional Issues
2-5 (roll4) Haybales and silt fence around inlet pipe basin at SE end of pond	There is a storm water drainage basin east of pond, outside fence. Buchtel feels it is not necessary to put silt fine and hay bales around the structure, because of its distance from
-6 (voll4) Concrete inlet pipe at se end of pond; hole chiseled for grout injection; hole chiseled to insert dram liver filled with sand to plug pipe.	the structure, because of its distance from
·7 (10114) Transporting fewth bladder (9-foot bladder) to NW end of pond.	the pond. 2. If concrete blocks from P.3 hangar to hot provide anough rip-rap, BEI stated that they will order

Construction Oversight, PSC 42 - Serpentine Pond copies to: -* ROICC Date: ABB Representatives: Erin Allen 5.2-96 Brian Johnson Bechiel Superintendent(on-site) U.S. Navy Representatives: Bill Norton hone Tom Roundtree Corresponding Sections of Work Plan 1. New Site Activities 1. Second water structure keyed in to dike 3.3. and westernmost finger of land, filled with pond water. 2. Enreco completed adapter for CAT 235. 3.2.3 allowing stabilization injectors to fit that machine 3. Bechtel did elevation readings with a ユ・5 level around berm to determine areas needing more, or less, soil in order to achieve to a consistent elevation of 18.5 feet 4. ABB walked around site to locate catch basins needing hay bales and silt fences around the 3.6.1 Corresponding Sections of Work Plan 2. Ongoing Site Activities 1. Grading bern to complete fifth lift and 1 يها. 3 -Smooth it out after heavy rains Thes., April 30 2. Water structure completely filled and anchored 3.3. l for first stabilization cell. Reason for Deviation/Documentation of Approval 3. Deviations from Work Plan None noted Additional Issues 4. Photographs/Video Documentation P-25(roll 3) Wtr-structure in place for first cell Portland cement should be delivered by Monday for stabilization unit. P-1 (roll4) Pumps used to fill water structures P-2 (volly) Flotation used to keep pump have out of cludge P-3 (roll4) Area on finger of land keyed in for second P-4 (voll4) Second structure being filled at NW and of

DAILY SITE VISIT

Construction Oversight, PSC 42 - Serpentine Pond

copies to: K. Rojec ABB Representatives: Date: Erin Allen 5-1-96 Brian Johnson Steve Mitchell Bechtel Superintendent: (On -site) U.S. Navy Representatives: Bill Norton None Tom Roundtree 1. New Site Activities Corresponding Sections of Work Plan Silt fence and hay bales place around grate for diversion valve for concrete pipe near chlorine 3.6.1 contact chamber. 2. Brian Johnson and Erin Allen looked at concrete blocks that were broken for strength testing as a possible rip rap for dike overflow structure. 3.6.1 According to FNOT reg. the blocks are acceptable for rip-rap. . the concrete 3. First water structure (placed for practice near chlorine contact chamber) was partially drained on 43796 in afternoon. ABB was not present. Draining completed tiday and structure moved and keyed into dike, and partially filled for first stabilization cell. During keying in bladder, contractor fall that very little contemnated material is scraad away from pond edge. Moved makrial will be stabilized on the contractor of the contractor of the contractor of the stabilization will be stabilized on the contractor of the stabilized with several will be stabilized on the contractor of the con 3.3.1 2. Ongoing Site Activities with rest consecutive cath Corresponding Sections of Work Plan None 3. Deviations from Work Plan Reason for Deviation/Documentation of Approval None noted. 4. Photographs/Video Documentation Additional Issues / Comments Brian Johnson and Steve Mitchell from ABB. None. Portland Design Services Center on-site to observe activities and to attend weekly meeting with Buchtel and Roice

elegal (Impressed of the place of grown

DAILY SITE VISIT Construction Oversight, PSC 42 - Serpentine Pond ABB Representatives: Dale: Brian Johnson 4-30-96 Erin Allen Bechtel Superintendent: U.S. Navy Representatives: Bill Norton None 1. New Site Activities Corresponding Sections of Work Plan None 2. Ongoing Site Activities Corresponding Sections of Work Plan None - (raining hard all day) 3. Deviations from Work Plan Reason for Deviation/Documentation of Approval None noted 4. Photographs/Video Documentation Additional Issues / Comments. None None. Brian Johnson from ABB- Portland Design Center on site to observe activities until

May 9, 1996.

respectively the compare them to be expected.

DAILY SITE VISIT Construction Oversight, PSC 42 - Serpentine Pond

Copies	to Koice & tie
ABB Representatives:	Date:
Erin Allen Brian Johnson ABB-Path Fred Bragdon Design Services Can	4-29-96
Bechtel Superintendent:	U.S. Navy Representatives:
Bill Norton	none
1. New Site Activities	Corresponding Sections of Work Plan
nane	
2. Ongoing Site Activities	Corresponding Sections of Work Plan
Enrice and Beithel Werking on pump to stabilization unit; ran pend waker through pump. spreading and compaction of soil for fifth lift of kerm.	5.2.3
Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none noted.	
Photographs/Video Documentation	Additional Issues
nene.	none.

DAILY SITE VISIT :	
Construction Oversight, PSC 42 - Serpentine Pond	
copies to: x	Roice * file
ABB Representatives:	Date:
Erin Allen	4-25-96
Bechtel Superintendent:	U.S. Navy Representatives:
Bill Norton Tom Roundtre. Steve Santamaria	None
1. New Site Activities	Corresponding Sections of Work Plan
- Equipment maintenance on Stabilization unit pump	
-Trial run of stabilization system. using pond water, but no concrete.	
- Conversation will Bill Norton about, surveying completed berm to detm. final elivation, slope, and coordinates of corners. B. Norton said this will be done professionally and an as-built will be generated.	
2. Ongoing Site Activities	Corresponding Sections of Work Plan
Soil being graded and Compacted for fifth lift of berm	ωρ: 2.5 + 5.2.3
	•
3. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none noted	
Photographs/Video Documentation	Additional Issues
Roll 3 (p.23 + p.24) Wildlife at pond	
<u>·</u>	

ABB Representatives:	Date:
Erin Allen	4-24-96
Don Haumann	7-27-96
Bechtel Superintendent:	U.S. Navy Representatives:
Bill Norton	
Steve Santa Maria	none
1. New Site Activities	Corresponding Sections of Work Plan
- Compaction test on N. side of 4th lift of	
berm. ABB reps at weekly Mtg; will be	WP Scc. 5.2.3
given copy of results.	
	,
- D. Haumann. E. Allen. S. Santamana surreyed elevation of dike above pond water level,	100 Sec. 2.5
to insurat least 30." At two location,	W Zz z
Send of pond, dila is 5.11 and 4.79'	_
- D. Haumann. E. Allan, S. Santamarin E. Najmila discuss Assign of overflow structure in a east + North. Hastling self to dike. Stock pilling on east + North.	ωρ ειε. 2.5
- Call between E. Allen, D. Haumann, S. Santamana	
Brian Johnson - ABB, Portland, to discuss Sampling technique and dike height.	WP Sec. 25 and 5.2.4
2. Ongoing Site Activities	Corresponding Sections of Work Plan
- Hauling soil to dike, stockpiling in North + east side of pond-	WP Sc. 5.2.3
- Compacting soil on N. and of pond's dike,	wp Sec 5.2.3
Ut lift.	
- Spreading soil on fingers of land into pond and on bern for fifth lift.	
pond and on berin for fifth lift.	
,	
. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
none noted	
·	
	}
Photographs/Video Documentation 5	. Comments
(RO113) P-22 One injector of stabilization systm attached to Catrpillar 320 machinery.	
Categillar 320 marking	
Carpinos Octo macrinery.	·
(wp sec . 3.2.3)	

	ABB Representatives:	Date:
	E. Allen F. Bragdon	4-23-96
ŀ	Bechtel Superintendent:	U.S. Navy Representatives:
Ī	Bill Norton, Steve Santa Maria	None
	1. New Site Activities	Corresponding Sections of Work Plan
	Density (compaction) testing of S.W. + E sides of berm, 4th.	WP Sec. 5.2.3
	Stabilization equipment set up on a 30'x30'x1' compacted pad of soil at south end of	ωρ Sec. 5.2.4
	pend. BET took composite soil sample of material spread on east side of pend, requested by it thumann, ABB-ES.	wp Sec. 6.2.
2	. Ongoing Site Activities	Corresponding Sections of Work Plan
	Soil stockfilled on east and north sides of pond	心户 Ser. 57.2.3 ···································
3	Deviations from Work Plan	Reason for Deviation/Documentation of Approval
	None noted.	Reason for Deviation/Documentation of Approval
		5. Comments
(r	1011 3) P-10 Views of berm, legs pulled from berm material, stabilization equipment, wildlife at pend	Keys to compacter lost in morning, and fuel filter problem with grader in afternoon slowed work.

Construction Oversight, PSC 42 - Serpentine Pond

copies to: ROICC FILE							
ABB Representatives:	Date:						
E. Allen F. Bragdon Bechtel Superintendent:	4-22-96 U.S. Navy Representatives:						
Bill Norton	none						
New Site Activities	Corresponding Sections of Work Plan						
Stabilization equipment delivered to South side of pond	wp Sec. 5.2.4						
Density (compaction) testing of third lift of born by CSI 4 test locations == 1	WP Sec. 5.2.3						
- No compaction ranged from 104.5-169% - me ranged from 12.3 to 16.5 Scil being spread on finger of cland							
2. Ongoing Site Activities	Corresponding Sections of Work Plan						
Sul being stick piled on North and for the sast sides of pend, and being spread in 3-inch layers for drying.	WP Se. 5.2.3						
Deviations from Work Plan	Reason for Deviation/Documentation of Approval						
None noted							
Photographs/Video Documentation	5. Comments						
Roll 3 (P-3 through P-9) Stabilization equipment and nuclear density testing.	weather: clear, windy, dry						

ABB Representatives:	Date:
FRED BRAGDON	4-19-96
Bechtel Superintendent:	U.S. Navy Representatives:
Bill Norton	
1. New Site Activities	Corresponding Sections of Work Plan
- Dousity (Compoction) Testing of the 2nd lift	WP Sec. 5,2,3
- completed 7 test location	7\$
- all passed (rouged from	
100-103.4% Compaction	
- two areas strettly wetter than Bechfel's target	
- Testing Conducted by CSI	
Ongoing Site Activities	Corresponding Sections of Work Plan
- Continue to have dike fill - placing on 2nd lift and in stock-pile	ωP Sie. 5,7,3
arca	
•	
3. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
None Noted	
. Photographs/Video Documentation	Additional Issues
Photo doc. of the Deusity	
testing,	
	ļ

Copy sent to LOVNY 4-18-76 DAILY SITE VISIT Construction Oversight, PSC 42 - Serpentine Pond ABB Representatives: Date: 4-18-96 FRED BRAGDON Bechtel Superintendent: U.S. Navy Representatives: Norton B:11 New Site Activities Corresponding Sections of Work Plan - Performed Density test on 1st lift of the dike WP Soctron 5.2.3 - Standardization test performed - 8 Density tests (8 locations) - all test results exceeded the minimum of 94% - all moisture Contents (bured on the machine) were with in range", Tony Arnettat (SI Ongoing Site Activities Corresponding Sections of Work Plan - continue to stock pile soil material for dike - added wore soil fill to the lay-down area. - Start spreading and compacting Lift#2 - Density Testing planned for FRI 7,00AM 3. Deviations from Work Plan Reason for Deviation/Documentation of Approval None noted 4. Photographs/Video Documentation Additional Issues Photographics of the area, working equipment,

and 1st lift were made

fuished RoH #1 On 2 1/4

Larry Blackburn (1044 to lory 4-9-96)

DAILY SITE VISIT

DAILY SITE VISIT Construction Oversight, PSC 42 - Serpentine Pond

ì		·
	ABB Representatives:	Date:
	Pon Haumann 09.35Am - 12:15pm	4-17-96
	FRED BRAGDON	
	Bechtel Superintendent:	U.S: Navy Representatives:
	Bill Norton (3.5.)	
	·	
	1. New Site Activities	Corresponding Sections of Work Plan
	- Fill being delivered and stacked on west side of pond	2.5 Contamuent Dike
	- Discussed with Bill Norton (55-Bealtel) * Compaction testing to start T:00-7:30 Am 4-18-96.	
	* Friday will consist of only harring fill wa spreading or compaction.	
F	Ongoing Site Activities	Corresponding Sections of Work Plan
	continued to spread and compact dike fill all sides	2.5 Contamment Dike
	- Fencing about 90-95% Complete	2.1.2 Temporary Facilities (fencins)
3.	Deviations from Work Plan	Reason for Deviation/Documentation of Approval
	Vone Noted	- Control of Approval
	Photographo A fidos D	
+. t	Photographs/Video Documentation A	Additional Issues
	None.	

Copy to Larry B 4-18-96							
	SITE VISIT						
Construction Oversight, PSC 42 - Serpentine Pond							
Collection oversigning . Ou in our persons							
ABB Representatives:	Date:						
F. Bragdon	4-16-96						
	, , , , , , , , , , , , , , , , , , , ,						
Bechtel Superintendent:	U.S. Navy Representatives:						
Bill Norton							
	Corresponding Sections of Work Plan						
1. New Site Activities	Conesponding Control of View 1						
None							
S NON C							
•							
-							
O'C Authorite	Corresponding Sections of Work Plan						
2. Ongoing Site Activities							
- Fencing - post=90% complete	- W.P. Sec. 212						
Chainlink 250% complete							
- 1 to 1 to 1							
- spreading dike material							
to enhance airdying.	WP Sections 2.5 and						
hold up with delivery of	5.2.3						
- hold up with delivery of adaptronal dike material	/						
. Deviations from Work Plan	Reason for Deviation/Documentation of Approval						
None							
	-						
Photographs/Video Documentation	Additional Issues						
1000							
None	ĺ						
Photographs/Video Documentation Wowl	Additional Issues						

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ABB Representatives:	Date:
Fied BRAGDON	4-15-96
Bechtel Superintendent:	U.S. Navy Representatives:
B.71 Vorton	
1. New Site Activities	Corresponding Sections of Work Plan
- Bechtel Decommissioned 4 existing wells (ABB-ES woo not present) 42-88, 42-7, 42-6, and 42-5 - Above ground portron of thear 4 wells and one previously decommissioned well (42-8) removed and waterial piled at worth end of PP area.	WP Jec 3.11 (Appendix B,. 22567-001-59000-022) and wp Jec 2.3
	The state of the s
2. Ongoing Site Activities	Corresponding Sections of Work Plan
Bechtel working on 1st lift - Bechtel waiting for addition soil	
3. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
Done Noted	
. Photographs/Video Documentation	Additional Issues
None.	· · · · · · · · · · · · · · · · · · ·

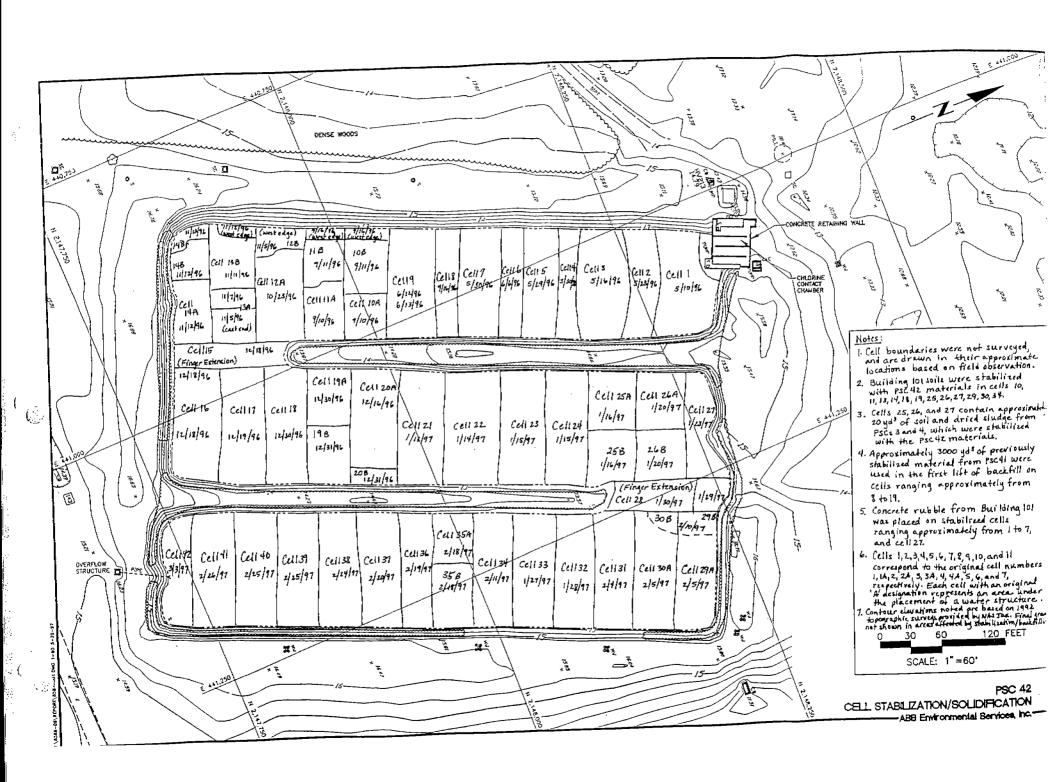
ABB Representatives:	Date:
FRED BRAGDON	4-11-96
Bechtel Superintendent:	U.S. Navy Representatives:
Bill Norton (Becktel)	
1. New Site Activities	Corresponding Sections of Work Plan
- Fencins operation started hear the Northwest corner of project area. - per Norton - one proctor fest completed of representative	
(composit) sample from source	
by CSI	·
2. Ongoing Site Activities	Corresponding Sections of Work Plan
- Clearing and Grubbing regetation around pond (0-25'zone).	
. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
None Noted	
Photographs/Video Documentation	Additional Issues
None.	

DAILY SITE VISIT Construction Oversight, PSC 42 - Serpentine Pond ABB Representatives: Erin Champ Fred Bragdon Date: 4-1-96

Fred Bragdon	
Bechtel Superintendent:	U.S. Navy Representatives:
Eddie Nazmola	
1. New Site Activities	Corresponding Sections of Work Plan
2. Ongoing Site Activities	Corresponding Sections of Work Plan
Water Structure Dam placed in front of (South) of chilorine contact chamber	3.3.1
Decon. pad (Anished)	5.2.2
Cleaning (Finished)	2. 2.
Refueling tank in place	4.4
3. Deviations from Work Plan	Reason for Deviation/Documentation of Approval
. Photographs/Video Documentation	Additional Issues

Erin Champ

APPENDIX B PSC 42 CELL STABILIZATION/SOLIDIFICATION MAP



APPENDIX C UNCONFINED COMPRESSIVE STRENGTH SAMPLING RESULTS

APPENDIX C

Unconfined Compressive Strength Sampling Results



Project	NAS Jax PSC 42			*		Report No.	CON0196
Location	Jacksonville, Flori	da			·	CSI Project No.	
Architect / Engineer	Bechtel Envirome	ntal		<u></u>		Date	24-May-96
Contractor Bechtel Enviromen						Design Strength	30 psi
Supplier						Mix Design No.	Sand Cement
Date Cast 10-May-96	_ Date Received		13-May-96	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL SO	DURCE	·····	BATCH DA	TA - 1 cu.yd.		FIELD TEST DATA	
Cement	75,102	Cement			Slump. Ins.	Air, %	
F.A.		F.A.	-		Ticket No.	Truck No.	
C.A.		C.A.			Unit Wt:	Tune:	
A.E.A.		Water			Temp., F: Air	- Conc.	
Admix		A.E.A.		Admix	Cubic Yds, Pla	iced	
Location of Pour	PSC 42(Cell 1)						

	COMPRESSIVE STRENGTH - 3" x 6" SPECIMENS											
Cylinder	Test Date	Age	Curing (day	(days) Total Load (lbs.)		Compressive	Fracture	Aggregate	. Tested by			
.i No.	<u> </u>	(days)	Field	Lab	1	Strength (psi)	Туре	Fracture				
NX-196A	17-May-96	7	1	6	400	60	1.		МВ			
NX-196B	24-May-96	14	1	13	500	70	1		мв			
•									-			
1												
:]		į					
			.	,								
i					1							



Cone



Split



FRACTURE TYPE

3

~emarks

5/17/96 87% moisture 5/24/96 43.2% moisture

Reviewed by



Project		···	_ Report N	o	CONOSES					
Location		_ CSI Proje	ect No.							
Architect / E	Engineer	Bechte	I Envirome	ental				_ Date		05-Jun-96
Contractor		Bechte	Envirome	ental				_ Design St	trength	30 PSI
Supplier			· 			····	···	Mix Desig	n No.	Sand Cement
Date Cast	22-May-96	_ Date R	eceived		28-May-96	_ Cylinders made by	BECHTEL	. No. Subπ	nitted	2
	MATERIAL S	OURCE	-	· · · · · · · · · · · · · · · · · · ·	BATCH DA	TA - 1 cu.yd.		FIELD TE	ST DATA	
Coment			·	Cement					Air. %	
F.A.				F.A.		Ticket No.	Truck No.			
C.A.			C.A.			Unit Wt:	Time:			
A.E.A.				Water			Temp., F: Air	-	Conc.	
Admix				A.E.A.		Admix	Cubic Yds. Pl	aced		
Location of F	our	PSC 42	Cell #1-A	(Ce	112)			,		
				OMPRES:	SIVE STRENGTH	6" x 6" x 18" SPECIMENS				
Cylinder	Test Date	Age	Curing (day					Aggregate	T	ited by
No.	1	(days)	Field	Lab	1	Strength (psi)	Type	Fracture	1	ice by
NX-396A	05-Jun-96	7	6	1	140	20	1		,	MB
NX-396B	12-Jun-96	14	6	8	220	30	1		- 1	MB

Shear



Cone



Split



.

FRACTURE TYPE

1

•

Remarks

05/29/96 68% moisture content

Moisture 6/5

Reviewed by

Melin L Quekana



NAS Jax PSC 42	2	·			Report No.	CON0296
Jacksonville, Flor	ida				CSI Project No.	
Bechtel Envirome	ental		·· · · · · · · · · · · · · · · · · · ·		Date	06-Jun-96
Bechtel Environe	ental				Design Strength	30 psi
					Mix Design No.	Sand Cement
Date Received		20-May-96	_ Cylinders made by	BECHTEL	No. Submitted	2
URCE		BATCH DAT	TA - 1 cu.yd.	T	FIELD TEST DATA	A
	Cement			Slump. Ins.	Air, %	-
	F.A.			Ticket No.	Truck No	
	C.A.			Unit Wt:	Time:	
	Water			Temp., F: Air	- Conc	
	A.E.A.		Admix	Cubic Yds. Pla	iced	
PSC 42 Cell #2	Cell	3)				
	Jacksonville, Flor Bechtel Environe Bechtel Environe Date Received	OURCE Cement F.A. C.A. Water A.E.A.	Jacksonville, Florida Bechtel Enviromental Bechtel Enviromental Date Received 20-May-96 DURCE BATCH DATE Communit F.A. C.A. Water A.E.A.	Jacksonville, Florida Bechtel Enviromental Bechtel Enviromental Date Received 20-May-96 Cylinders made by DURCE BATCH DATA - 1 cu.yd. Coment F.A.	Jacksonville, Florida Bechtel Enviromental Bechtel Enviromental Date Received 20-May-96 Cylinders made by BECHTEL DURCE BATCH DATA - 1 cu.yd. Coment Slump. Ins. F.A Ticket No. Unit Wt: Water Temp., F: Air A.E.A. Admix Cubic Yds. Place	Jacksonville, Florida Bechtel Enviromental Design Strength Mix Design No. Date Received Date Received Design Strength Mix Design No. Date Received Design Strength Mix Design No. Date Received Design Strength Mix Design No. Date Received Durce BATCH DATA - 1 cu.yd. Durce BATCH DATA - 1 cu.y

- [COMPRI	ESSIVE STRENGTH	I - 3" x 6" SPECIMENS			
Ξĺ	Cylinder	Test Date	Age	Curing (day	z)	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tasted by
	No.		(daya)	Field	Lab		Strength (psi)	Туре	Fracture	
44.44	NX-296A	23-May-96	7	1	6	250	35	1		МВ
İ	NX-296B	06-Jun-96	14	1	13	355	50	1		MB
:										-
:				;		j]		
- 1						j				
;						ĺ				
:				·	j					i
-			į			Ì				}
:			ļ							į
į					. 1					1
_	<u> </u>					<u> </u>				

Shear



Cone



Split



FRACTURE TYPE

05/23/96 81.5% moisture

emark**s**

05/30/96 74% moisture

Reviewed by

Melun L Buchan



E , •-,					•			Report No.		CONOSSS
Project .		NAS Jax	P <u>SC 42</u>					CSI Projec		
Location		Jacksonv	ille. Florida	<u> </u>		<u> </u>		-	, 140.	
Architect / En	gineer	Bechtel E	TAICHI MI	ral				Date		13-Jun-96
Contractor		Bechtel E	nviroment	<u>ai</u>			•	Design Stre	ength	3 <u>0 PS1</u>
		. ,			_			Mix Design	No.	Send Cernem
Supplier Date Cast	30-May-95	 Date Re	ceived		31-May-96	Cylinders made by	BECHTEL	. No. Submi	ted.	2
, .			- 		BATCH DAT	A - 1 eu vd.	-	FIELD TES	ST DATA	<u> </u>
	ATERIAL 30	DURCE		Consent	BAICHEAL	<u> </u>	Տիտոր ես.		Air. %	
Cement				F.A.			Ticket Na.		Truck No	·
F.A				C.A.			(Unit Wt:		Time:	
Ç.A				Water			Temp., F: Air		Conc	 .
A.E.A		_ ··		A.E.Λ.		Admix	Cubic Yds. P	laced .		
Location of P	ouf	PSC 42	Cell #2-A	(Ce	<u>u4)</u>					
				OMPESS	IVE STRENGTI! -	6" x 6" x 18" SPECIMEN	S Fracture	: Aggregate	<u> </u>	Trained by
Cylinder No.	Test Date	Agr (dava)	Curing (day	ı) Lab	Total Load (lbs.)	Compressive Strength (psr)	Турс	Fracture	ļ'	
NX-696A	06-Jun-98	7	1	6	95	10	1			МВ
NX edeB	13-Jun-96	14	1	13	175	20	1			MB
] [į						1		
									Ì	
i				1			1			

Shear



Cone



3plit



4

Remarks

Moisture Content 6/7 70.4%

FRACTURE TYPE

Reviewed by





Project	•	NAS Jax PSC 42	2		·- <u>-</u>		Report No	CELL 2-A
Location		Jacksonville, Flor	rida		<u>. • </u>		CSI Project No.	
Architect / E	ngineer	Bechtel Envirome	ental			-	Date	96-Jul-96
Contractor		Bechtel Envirome	ental				Design Strength	30 psi
Supplier	· · · · · · · · · · · · · · · · · · ·					-	Mix Design No.	Sand Cement
Date Cast	08-Jul-96	_ Date Received	_	96-luL-90	_ Cylinders made by	BECHTEL	No. Submitted	2
								
	MATERIAL SC	DURCE		BATCH DA	TA - 1 cu.yd.]	FIELD TEST DATA	,
Cement	MATERIAL SC	DURCE	Cement	BATCH DA	TA - 1 cu.yd.	Slump. Ins.	FIELD TEST DATA	
Cement	MATERIAL SC	DURCE		BATCH DA	TA - 1 cu.yd.	Slump. Ins.	·	
Cement F.A.	MATERIAL SC	DURCE		BATCH DA	TA - 1 cu.yd.		Air, %	
Cement	MATERIAL SO	DURCE	F.A.	BATCH DA	TA - 1 си.yd.	Ticket No.	Air, % Truck No. Time:	
Cement F.A. C.A.	MATERIAL SC	DURCE	F.A.	BATCH DA	TA - 1 cu.yd.	Ticket No. Unit Wt:	Air, % Truck No. Time: Conc.	
Cement F.A. C.A. A.E.A.		DURCE Field Cores at Cel	F.A. C.A. Water A.E.A.	BATCH DA		Ticket No. Unit Wu Temp., F: Air	Air, % Truck No. Time: Conc.	
Cement F.A. C.A. A.E.A. Admix.			F.A. C.A. Water A.E.A.			Ticket No. Unit Wu Temp., F: Air	Air, % Truck No. Time: Conc.	

				COMPR	ESSIVE STRENGTH -	3" x 6" SPECIMENS			
Cylinder	Test Date	Age	Age Curing (days)		Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
No.	<u> </u>	(daya)	Field	Lab]	Strength (pai)	Туре	Fracture	
CELL 2-A	09-Jul-96				415	70	3		AR
				,					

Shear



Cone



Split



.

4

FRACTURE TYPE

1

.

.

Remarks

Reviewed by





Project	NAS Jax PSC 42				Report No	CON-496
Location	Jacksonville, Florid	da			CSI Project No.	:
Architect / Engineer	Bechtel Environmen	ntal			Date	12-Jun-96
Contractor	Bechtel Enviromer	ntal			Design Strength	30 PSi
Supplier				<u></u>	Mix Design No.	Sand Cement
	_ Date Received		31-May-96 Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL SC	TURCE		BATCH DATA - 1 cu.yd.		FIELD TEST DATA	
MATERIAL SC	DURCE	Cement	BATCH DATA - 1 cu.yd.	 Slump, Ins.	FIELD TEST DATA	
Cement	DURCE	Cement F.A.	BATCH DATA - 1 cu.yd.			
Cement F.A.	DURCE	F.A.	BATCH DATA - 1 cu.yd.		Air. % Truck No. Time:	
Cement F.A. C.A.	DURCE		BATCH DATA - 1 cu.yd.	Ticket No.	Air. % Truck No. Time:	
Cement F.A.		F.A.	BATCH DATA - 1 cu.yd. Admix	Ticket No.	Air. % Truck No. Time: Conc.	

						6" x 6" x 18" SPECIMENS Compressive	Fracture	Aggregate	Tested by
Cylinder	Test Date	Age	Curing (day		Total Load (Ibs.)	Strength (psi)	Type	Fracture	
No.		(days)_	Field	Lab	<u> </u>	Sittligar (131)	<u> </u>	1	
NX-496A	05_Jun-96	7	1	6	145	20	1		МВ
NX-496B	12~Jun-96	14	1	13	205	30	1		мв
}									

Shear



Cone



Split



3

1

FRACTURE TYPE

Moisture Content 6/5 72.4%

Remarks

NOTE: You may need to use a little more cement, you are just barely passing. MB

Med



Project	NAS Jax PSC 42			Report No.	CON0796
Location	Jacksonville, Florida	<u>-</u> -		CSI Project	No
Architect / Engine	eer Bechtel Enviromental		: 	Date	20-Jun-96 .
Contractor	Bechtel Environmental			Design Stre	ngth 30 PSI
Supplier		··		Mix Design I	No. Sand Cement
Date Cast06	-Jun-96 Date Received	10-Jun-96	Cylinders made by	BECHTEL No. Submitte	ed2

MATERIAL SOURCE		EATCH DATA - 1 cu.yd.	FIEL	DITEST DATA
Cement	Cement		Slump. Inc.	Air, %
F.A.	F.A.		Ticket No.	Truck No.
C.A.	C.A.		Unit Wt:	Time:
A.E.A.	Water		Temp., F: Air -	Conc
Admix	A.E.A.	Admix	Cubic Yds Placed	

Location of Pour

PSC 42 Cell #3-A

(Cell 6)

Cylinder	Test Date	Age	Curing (day	n)	Total Load (lbs.)	Соприсыва	Fracture	Aggregate	Tested by
No	ļ	(days)	Field	Lab	1	Strength (psi)	Турс	Fracture	
IX-796A	13-Jun-96	7	1	6	300	40	1		МВ
IX-796B	20-Jun-96	14	1	13	1,000	140	2		- AR
					1				
ļ								,	
					1		1		

Shear Cone

Shear



Cone



Split



1

2

3

A

emarks #8 Moisture - 37.6%

FRACTURE TYPE

Reviewed by





CONCRETE STRENGTH REPORT

Project		NAS J	ax PSC 42	2				Report No.	· (CELL 4
Location	•	Jackso	nville, Flo	rida			·	CSI Project I	
Architect / E	ngineer	Bechte	l Envirome	ental				Date	09~Jul-96
Contractor		Bechte	I Envirome	ental				Design Stren	
Supplier								Mix Design N	
Date Cast	08-Jul-96	_ Date R	eceived		09-Jul-96	Cylinders made by	BECHTEL	_	
	MATERIAL SO	OURCE			BATCH DAT	A - 1 cu vd		FIELD TEST	DATA
Cement				Coment		7.7 1 00.70.	Slump. Ins.		ir, %
F.A.				F.A.		····	Ticket No.		uck No.
C.A.				C.A.			Unit Wt:		mc:
LE.A.				Water			Temp., F: Air	- Co	onc.
ldmix.				A.E.A.		Admix	Cubic Yds. Pl.	iced	
		 -	<u></u> -	COMPR	ESSIVE STRENGTH	- 3" x 6" SPECIMENS			
Cylinder	Test Date	Age	Curing (day		Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
No.		(days)	Field	Lab	(,	Strength (psi)	Туре	Aggregate Fracture	lested by
CELL4	09-Jul-96				375	63	2		AR
			_						

FRACTURE TYPE



2 -

3

4

marks

Reviewed by

MASS



Project	NAS Jax PSC 42	. .				Report No	NX-14
Location	Jacksonvile, Flor	da			. ,	CSI Project No.	
Architect / Engineer	Eechtel Envirome	ntal		<u>; </u>		Date	30-Sep-96
Contractor	Bechtel Environe	ntal				Design Strength	30 psi
Supplier				 		Mix Design No.	Sand Cement
Date Cast 15 Sep 36	_ Date Received		18-Sep-96	Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL'S	OURCE		BATCH DA	A • 1 cu.yd.		FIELD TEST DA	.TA .
Cemmi	-	Cement			Slump. Ins.	Air, *	
F.A.		F.A.			Ticket No.	Truck	Nu.
C.A.		C.A.			Unit Wt	Timu:	:
A.E.A.		Water			:Tony F: Air	- Conc.	
Almix		<u> </u>		Aumix	Cubic YJs. Pl	aced	
Location of Pour	COM 4A CC	118).					

				COMPR	ESSIVE STRENGTH	- 3" x 6" SPECEMENS			
Cylinaer Nu.	Ton Date	Age (45)3)	Conng (day Field	n) Lab	Total Load (lbs.)	Compressors Strength (pxl)	Fracture Type	Fracture	Tested (y
NX-14A	23-Sep-95	7	1	6	250	35			CS
NX-14B	30-Sep-95	14	1	13	300	40		į	CB
			ļ					i i 1	
								Ì	
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	ļ				į		į Į		



Shear



Split



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Remarks

FRACTURE TYPE





Project		NAS Jax PSC 42		<u>.</u>			Report No.	CON089
Location	<u>-</u>	Jacksonville, Flori	da				CSI Project No.	·
Architect / En	gineer	Bechtel Environe	ntal		· · · · · · · · · · · · · · · · · · ·		Date	20-Jun-95
Contractor		Bechtel Envirome	ntal			·	Design Strength	30 PS
Supplier	<u>.</u>	<u>,,</u>					Mix Design No.	Sand Cemen
Date Cast	13-Jun-96	Date Received	į.	13-Jun-96	_ Cylinders made by	BECHTEL	No. Submitted	2
	IATERIAL SC	URCE		BATCH DA	TA - 1 cu.yd.		FIELD TEST DAT	Α
Cement			Cement			Slump, Ins.	Air, %	
F.A.			F.A.		••	Ticket No.	Truck No	
C.A.			C.A.			Unit Wt:	Time:	
A.E.A.			Water			Temp., F: Air	- Conc.	
Admix.			A.E.A.		Admix	Cubic Yds. Pl		
Location of Po	our .	PSC 42 Cell #5(Ceu	9)				

	COMPRESSIVE STRENGTH - 6" x 6" x 18" SPECIMENS													
Cylinder	Test Date	Age	Curing (day	n)	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tosted by	Ī				
No.		(days)	Field	Lab]	Strength (psi)	Турс	Fracture		ندل				
NX-896A	20-Jun-96	7	1	6	400	60	1		AR					
NX-896B	27-Jun-96	14	1	13	1,100	160	2		AR					
			1		'			1						
]									
					}									
			İ											
			1	<u> </u>										
			1											
							<u> </u>			_				

Shear



Split



FRACTURE TYPE

1

2

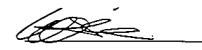
3

Cone

4

Remarks

#A Moisture - 22.8%





Project		NAS Ja	x PSC 42		· 			Report No	NX-
Location	-	Jacksor	ville, Flori	da		· .		CSI Project I	No
Architect / E	ngineer	Bechtel	Envirome	ntal				Date	08-Oct-
Contractor		Bechtel	Envirome	ntal	<u></u>		<u> </u>	Design Stren	igth 30 psi
Supplier								Mix Design N	lo. Sand Cem
Date Cast	10-Sep-96	_ Date Re	eceived		11-Sep-96	_ Cylinders made by	BECHTEL	No. Submitte	ed
	MATERIAL SO	DURCE		1	BATCH DAT	TA - 1 cu.yd.		FIELD TEST	DATA
cment				Cement			Slump. Ins.		ir. <u>"</u>
A				F.A.			Ticket No.		ruck No.
A.				C.A.			Unit Wt:		ime:
E.A.				Water A.E.A.		Admix ————	Temp., F: Air Cubic Yds. Pl		onc
		Cell 6	Cen	10)					
		00.0	Car						
		OC# O				H-3" x 6" SPECIMENS			
Cylinder No.	Test Date	Age (days)	Curing (day	COMPRI	ESSIVE STRENGTI Total Load (lbs.)	H - 3" x 6" SPECIMENS Compressive Strength (pai)	Fracture Type	Aggregate Fracture	Tested by
No.	Test Date	Age	Curing (day	COMPRI		Compressive Strength (pai)	1 ' 1	. 1	Tested by
No. NX-11A	1	Age (days)	Curing (day	COMPRI 3) Lab	Total Load (Ibs.)	Compressive Strength (pai) K	1 ' 1	. 1	Tested by
•	17-Sep-96	Age (days)	Curing (day Field	COMPRISA Lab 6 13	Unable to brea	Compressive Strength (pai) K	Туре	. 1	Tested by

Shear Cone



Shear



Cone



Split

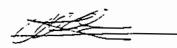


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Remarks





Project	<u>.</u>	NAS Ja	x PSC 42	<u> </u>			 _	Report No		Cell
_ocation		Jackso	nville, Flori	ida				CSI Project	No.	
Architect / E	ngineer	Bechtel	Envirome	ntal				Date	-	30-Oct-9
Contractor		Bechtel	Envirome	ntal				Design Strer	ngth	30 psi
Supplier								Mix Design N	۷o.	Sand Camer
Date Cast	25-Oct-96	_ Date R	eceived		28-Oct-96	_ Cylinders made by	BECHTEL	No. Submitte	ed	
	MATERIAL SO	DURCE			EATCH DAT	ΓA - 1 cu.yd.		FIELD TEST	T DATA	\
ement	<u> </u>			Cement	<u></u>		Slump. Ins.		Air. %	
A.				F.A.			Ticket No.	7	Truck No.	
.A.				C.A.			Unit Wt:		ime:	
E.A.				Water			Temp., F: Air		onc.	
dmix.				A.E.A.		Admix	Cubic Yda Pla			
<u> </u>										
				COMPRI	ESSIVE STRENGTI	I - 3" x 6" SPECIMENS				
Cylinder No.	Test Date	Agt (days)	Curing (day		ESSIVE STRENGTE	I - 3" x 6" SPECIMENS Compressive Strength (psi)	Fracture Type	Aggregate Fracture	Te	sted by
-	Test Date	· -		73)		Compressive	1		··· -	cB
No.		· -		73)	Total Load (lbs.)	Compressive Strength (psi)	1		···-	



3

Remarks



ENOTHE	ER					•			
Project		NAS Ja	x PSC 42					Report No.	NX-1
Location	•	Jacksor	nville, Flori	da				CSI Project N	lo
Coceson							٠,	Date	25-Sep-9
Architect / E	ngineer	Bechtel	Envirome	ntal		<u>: </u>			
Contractor		Bechtel	Envirome	ntal				_ Design Streng	gth 30 psi
Supplier								Mix Design N	o. Sand Ceme
Date Cast	11-Sep-96	Date R	eceived		13-Sep-96	Cylinders made by	BECHTEL	No. Submitted	d
	MATERIAL S	DURCE			EATCH DAT	A - 1 cu.yd.	1	FIELD TEST	DATA
	WATERIAL OF	<u> </u>	·	Cement			Slump. Int.		r. %
.A.				F.A.			Ticket No.		uck No.
:.A				C.A.			Unit Wt:		me:
LE.A.				Water			Temp_ F: Air		nt
\dmix_				A.E.A.		Admix	Cubic Yds. P.	3554	
Location of I	Pour	Cell 6 Lo	ocation 2	C	ell 10		· · · · · · · · · · · · · · · · · · ·		
				COMPRI	ESSIVE STRENGT	I - 3" x 6" SPECIMENS			
Cylinder	Test Date	Age	Curing (day		Total Load (lbs.)	Compressive	Fracture	Aggregate '	Tested by
No.		(days)	Field	Lab	<u> </u>	Strength (psi)	Туре	Fracture	
NX-13A	18-Sep-96	7	1	6	Unable to brea	k			
		!			1				

NX-13A 18-Sep-96 7 1 6 Unable to break

NX-13B 25-Sep-96 14 1 13 Unable to break

FRACTURE TYPE

Shear Cone



Shear



Сопе



Split



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7

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Remarks

CONCRETE STRENGTH REPORT



Project	NAS Jax PSC 42		- 		<u>.</u>	Report No.	NX-13
Location	Jacksonville, Flor	ida	· · · · · · · · · · · · · · · · ·			CSI Project No.	
Architect / Engineer	Bechtel Envirome	ntal		:		Date	09-Oct-96
Contractor	Bechtel Environe	ntal	·-		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Design Strength	30 psi
Supplier	<u></u>					Mix Design No.	Sand Cement
Date Cast 11-Sep-96	Date Received	-	13-Sep-96	_ Cylinders made by	BECHTEL	No. Submitted	1
MATERIAL SO	URCE	1	EATCH DAT	TA - 1 cu.yd.	7	FIELD TEST DATA	
Coment		Cement			Slump, Ins.	Air, %	
F.A.	·	F.A.			Ticket No.	Truck No.	
C.A.		C.A.		· - , 	Unit Wt:	Time:	
AEA		Water		•	Temp., F: Air -		!
Admix		A.E.A.		Admix	Cubic Yda Pla	ध्व	·
Location of Pour	Cell 6 Location 2	Cel	(10)	•			
		COMPRES	IVE STRENGTH	I - 3" x 6" SPECIMENS			

Cylinder	Test Date	Age	Curing (day		Total Load (Iba.)	I - 3" x 6" SPECIMENS Compressive	Fracture	Aggregate	Tested by
No.	<u> </u>	(days)	Field	l Lab	1 1	Strength (psi)	Туре	Fracture	rated by
	Ī		1	1 1	ant area in a serious filter				
NX-13(b)A	11-Oct-96	30	1	29	300	40			CB
ļ					1			1	
			ļ.				1		
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Shear Cone



Shear

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Split



FRACTURE TYPE

3

Сопе

4

Remarks



Project	NAS Jax PSC 42					Report No.	NX-16
Location	Jacksonville, Flori	da			 -	CSI Project No.	
Architect / Engineer	Bechtel Environne	ntal				Date	30-Sep-96.
Contractor	Bechtel Environe	ntal ·		-		Design Strength	30 psi
Supplier	· · · · · · · · · · · · · · · · · · ·		·			Mix Design No.	Sand Cement
Date Cast 16-Sep-96	Date Received		18-Sep-96	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL SO	URCE	_	EATCH DAT	A - 1 cu.yd.		FIELD TEST DATA	
Cement		Cement			Slump. Inc.	Air, 54	
F.A.		F.A.			Ticket No.	Trock Na.	
C.A.		C.A.			Unit Wt:	Tune:	
AEA		Water		-	Temp_F: Air	Conc.	1
Admix		A.E.A.		Admix	Cubic Yda Pla	ced	i
Location of Pour	Cell 6 Location 3	Ce	11 10		- <u>-</u> -		

- {	COMPRESSIVE STRENGTH - 3" x 6" SPECIMENS										
<u>.</u> [Cylinder	Test Date	Age	Curing (day	1)	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by	
	No.		(daya)	Field	Lab		Strength (pm)	Туре	Fracture		
	NX-16A	23-Sep-96	7	1	6	200	28			CB	
	NX-16B	30-Sep-96	14	. 1	13	230	30			СВ	
			, ,	[j -		- -	
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		1		· .	}	1					
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Shear Cone



Shear



Cone



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Split







Project	NAS Jax PSC 4	12				Report No	KN
Location	Jacksonville, Flo	orida			-	CSI Project No.	
Architect / Engineer	Bechtel Environ	nental			·	Date	09- <mark>Oct-</mark> 96
Contractor	Bechtel Environ	iental				Design Strength	30 psi
Supplier		· 				Mix Design No.	Sand Cement
Date Cast 11-Sep-96	_ Date Received		13-Sep-96	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL SO	OURCE		BATCH DA	TA - 1 cu.yd.		FIELD TEST DAT	A
Cement		Cement		· · · · · · · · · · · · · · · · · · ·	Slump. Ins.	Air. %	
F.A.		F.A.			Ticket No.	Truck N	D.
C.A.		CA			Unit Wt:	Time:	
AEA		Water			Temp., F: Air	- Conc.	
Admix.		AEA		Admix	Cubic Yds. Pla	iced .	
Location of Pour	Cell 7	<u>u 11)</u>					

			COMPA	-221AE 21VE MOTE	I - 3" x 6" SPECIMENS				
Test Date	Age	Curing (day	73)	Total Load (lbs.)	Co mpress ive	Fracture	Aggregate	Tested by	
	(days)	Field	Lab		Strength (pai)	Туре	Fracture		تنـــ
18-Sep-96	7	1	6	Unable to brea	•			(
25-Sep-96	14	1	13					•	!
02-Oct-96	21	1	20	400	60	1 1		CB	
,									
	İ								:
	18-Sep-96 25-Sep-96	(days) 18-Sep-96 7 25-Sep-96 14	18-Sep-96 7 1 25-Sep-96 14 1	(days) Field Lab 18-Sep-96 7 1 6 25-Sep-96 14 1 13	(days) Field Lab 18-Sep-96 7 1 6 Unable to bread 25-Sep-96 14 1 13	(days) Field Lab Strength (psi) 18-Sep-96 7 1 6 Unable to break 25-Sep-96 14 1 13	(days) Field Lab Strength (psi) Type 18-Sep-96 7 1 6 Unable to break 25-Sep-96 14 1 13	(days) Field Lab Strength (psi) Type Fracture 18-Sep-96 7 1 6 Unable to break 25-Sep-96 14 1 13	(days) Field Lab Strength (psi) Type Fracture 18-Sep-96 7 1 6 Unable to break 25-Sep-96 14 1 13

Shear



Cone



Split



Remarks

FRACTURE TYPE



Project		NAS Jax PSC 42	<u> </u>	·			Report No	NX-15
Location		Jacksonville, Flor	ida			_ -	CSI Project No.	
Architect / E	ngineer	Bechtel Environe	ntal		. .		Date	14-Oct-96
Contractor		Bechtel Envirome	ntal				Design Strength	30 psi
Supplier			· ·	· · · · · · · · · · · · · · · · · · ·			Mix Design No.	Sand Cement
Date Cast	16-Sep-96	_ Date Received		18-Sep-96	Cylinders made by	BECHTEL	No. Submitted	2
	MATERIAL SO	OURCE		EATCH DAT	ΓA - 1 cu,yd.		FIELD TEST DATA	\
Cement			Coment			Slump Ins.	Air, %	!
F.A_			F.A.			Ticket No.	Truck No.	
C.A.	·		CA			Unit Wt:	Time:	!
A.E.A.			Water			Temp., F: Air	- Conc.	
Admix.		<u> </u>	A.E.A.		Admix.	Cubic Yds. Pl	aced	
Location of F	our.	Cell 7 Location 2	(Ce	zu 11)	-			

Cylinder	Test Date	Age	Age Curing (days)		Total Load (lbs.)	Compressive	Fractive	Aggregate	Tested by
No.		(daya)	Field	Lab		Strength (psi)	Туре	Fracture	
VX-15A	23-Sep-96	7	1	6	Unable to break				
VX-15B	30-Sep-96	14	- 1	13	Unable to break				
IX-15C	14-Oct-96	28	1	27	500	70	1		СВ
							[

Shear Cone



Shear



Cone



Split



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Remarks

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OCT 3 0 1996





CONCRETE STRENGTH REPORT

EUSINE	LTING ERS						•		· ·
Project	<u> </u>	NAS Ja	x PSC 42	_	•	<u> </u>		Report No.	NX-17
Location		Jackson	ville, Flori	da				CSI Project N	10.
Architect / I	Engineer	Bechtel	Envirome	ntal	<u>.</u>			Date _	06-Nov-96
Contractor		Bechtel	Envirome	ntal				Design Stren	gth 30 psi
Supplier								Mix Design N	O. Sand Cement
Date Cast	23-Oct-96	_ Date R	eceived		28-Oct-96	_ Cylinders made by	BECHTEL	No. Submitte	d2
	MATERIAL CO	NUDCE.			DATCH DA	TA - 1 cu.yd.		FIELD TEST	DATA
	MATERIAL SO	JURUE		Cement	BATCHDA	TA - 1 cu.yu.	Slump, Ins.		t.%
Coment F.A.				F.A.			Ticket No.		uck Na
C.A.				C.A.			Unit Wt:		me:
A.E.A.				Water		***************************************	Temp., F: Air		onc.
Admix.				A.E.A.		Admix.	Cubic Yds. Pl:		
				GO) (III)	veen it entries	T 25 - CR CDECTA (ENIS			ý
Cylinder	Test Date	Age	Curing (day		Total Load (lbs.)	H - 3" x 6" SPECIMENS Compressive Strength (psi)	Fracture	Aggregate Fracture	Tested by
No. NX-17A	30-Oct-96	(days) 7	Field 1	6	160	23	Туре	Fractime	СВ
	1								СВ
NX-17B	06-Nov-96	14	1	13	220	31			CB
					·				
		j		,					
				Sh	ear Cone	Shear Co	ne	Split	
	FRACTUE	E TYPE					Y		

Remarks

Reviewed by

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Project	NAS Jax PSC 42				:	Report No.	NX-19
Location	Jacksonville, Florid	а				CSI Project No.	
Architect / Engineer	Bechtel Enviromen	tal		·		Date	25-Nov-96
Contractor	Bechtel Enviromen	tal				Design Strength	30 psi
Supplier						Mix Design No.	Sand Cement
Date Cast 11-Nov-96	Date Received		13-Nov-96	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL SO	DURCE)	EATCH DAT	ΓA - 1 cu.yd.		FIELD TEST DATA	
Cement		Cement		· · · · · · · · · · · · · · · · · · ·	Slump. Inc.	Air, %	
F.A.		F.A.			Ticket No.	Truck No.	
C.A.		C.A.			Unit Wt:	Time:	
A.E.A.		Water			Temp., F: Air	- Conc.	
Admix.		A.E.A.		Admix	Cubic Yds. Pl.	aced	
Location of Pour (Cell 12 B & 13A						

				COMPR	ESSIVE STRENGTH -	- 3" x 6" SPECIMENS			
Cylinder	Test Date	Age	Curing (day	3)	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
No.	<u> </u>	(qaha)	Field	Lab		Strength (psi)	Турс	Fracture	
NX-19A	18-Nov-96	7	1	6	See Remarks				
NX-19B	25-Nov-96	14	1	13	300	42			СВ
							}		

ear Cone



Cone



Split

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FRACTURE TYPE

1

2

3

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Remarks

1. Unable to break to weak



Project	NAS Jax PSC 42	2				Report No.	NX-18
Location	Jacksonville, Flor	ida		· · · · · · · · · · · · · · · · · · ·		CSI Project No.	
Architect / Engineer	Bechtel Environe	ental		, 		Date	12-Nov-96
Contractor	Bechtel Environs	ental				Design Strength	30 psi
Supplier					<u>, , , , ,</u>	Mix Design No.	Sand Cement
Date Cast 05-Nov-96	_ Date Received		07-Nov-96	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL S	OURCE	1	BATCH DAT	ΓA - 1 cu.yd.		FIELD TEST DATA	· · · · · · · · · · · · · · · · · · ·
Cement		Cement		<u> </u>	Slump. Ins.	Air, %	
F.A.		F.A.			Ticket No.	Truck No.	
C.A.		C.A.			Unit Wt:	Time:	
A.E.A.		Water			Temp., F: Air	- Conc.	
Admix.		A.E.A.		Admix	Cubic Yds. Pla	rced	

				COMPR	ESSIVE STRENGTH -	3" x 6" SPECIMENS			
Cylinder	Test Date	Age	Curing (days)		Total Load (Ibs.)	Compressive	Fracture	Aggregate	Tested by
No.		(days)	Field	Lab		Strength (psi)	Туре	Fracture	
NX-18A	12-Nov-96	7	1	- 6	See Remarks				
NX-18B	19-Nov-96	14	1	13	225	32			СВ
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Shear Cone

Shear



Split



Cone

Remarks

1. Unable to break to weak

FRACTURE TYPE



er <u>l</u>	· · · · · · · · · · · · · · · · · · ·	rille, Floric Enviromer Enviromer	ntal Coment F.A. C.A.	15-Nov-96 EATCH DAT	Cylinders made by A - 1 cu.yd.	BECHTEL Slump. Ins. Ticket No.	FIELD TES	No. 27-Novement 30 ps No. Sand Cented T DATA Air, % Truck No.
er <u> </u> Nov-96	Bechtel E Bechtel E Date Rec	nviromer	ntal Coment F.A. C.A.			Slump, Ins.	Date Design Stree Mix Design I No. Submitt	27-Novement 27-Novement 27-Novement 20 ps No. Sand Cented 27 DATA Air. % Truck No.
Nov-96	Bechtel E	nviromer	Coment			Slump, Ins.	Design Strei Mix Design I No. Submitt	ngth 30 ps No. Sand Cented T DATA Air, % Truck No.
Nov-96	Date Red					Slump, Ins.	Mix Design I No. Submitt	No. Sand Cented T DATA Air, % Truck No.
	· · · · · · · · · · · · · · · · · · ·	ceived	F.A. C.A.			Slump, Ins.	No. Submitt	T DATA Air, % Truck No.
	· · · · · · · · · · · · · · · · · · ·	ceived	F.A. C.A.			Slump, Ins.	FIELD TES	T DATA Aîr, % Truck No.
RIAL SO	URCE		F.A. C.A.	EATCH DAT	A - 1 cu.yd.	Ticket No.		Aîr, % Truck No.
			F.A. C.A.			Ticket No.		Truck No.
			C.A.					
			C.A.			1		
						Unit Wt:		Time:
			Water			Temp_ F: Air	•	Conc.
		-	A.E.A.		Admix	Cubic Yds. Pl	aced	
	Cell 13B	<u>) </u>	COMPR	ESSIVE STRENGT	H - 3° x 6" SPECIMENS			
et Date	Age	Curing (da	vz)	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
	(days)	Field	Lab	1	Strength (psi)	Type	Fracture	
Nov-96 Nov-95	7	1 1	, 6 13	See Remarks	60			C8
N	ov-96	(daya) ov-96 7	(daya) Field	t Date Age Curing (days)	t Date Age Curing (days) Total Load (lbs.) (days) Field Lab Ov-96 7 1 6 See Remarks	ov-96 7 1 6 See Remarks	t Date Age Curing (days) Total Load (lbs.) Compressive Fracture (days) Field Lab Strength (psi) Type OV-96 7 1 6 See Remarks	t Date Age Curing (days) Total Load (lbs.) Compressive Fracture Glave (days) Field Lab Strength (psi) Type Fracture Fracture

Shear



Cone



Split



FRACTURE TYPE

1

2

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4

Remarks

Unable to break to weak





Project	-	NAS Jax PSC 42				·	Report No.	NX-21
Location		Jacksonville, Flori	da				CSI Project No.	<u> </u>
Architect / Er	ngineer	Bechtel Environe	ntal		·		Date	27-Nov-9
Contractor		Bechtel Envirome	ntal			,	Design Strength	30 psi
Supplier			<u> </u>				Mix Design No.	Sand Cemer
Date Cast	13-Nov-96	_ Date Received		15-Nov-96	Cylinders made by	BECHTEL	No. Submitted	
	MATERIAL SC	DURCE		BATCH DAT	A - 1 cu.yd.		FIELD TEST DATA	
Cement			Cement		······································	Slump. Ins.	Air, %	<u>'</u>
F.A.			F.A.			Ticket No.	Truck No.	
C.A.			C.A.			Unit Wt:	Time:	
A.E.A.			Water			Temp., F: Air	- Conc.	
Admix.			A.E.A.		Admix	Cubic Yds. Pl.	aced	

				COMPR	ESSIVE STRENGT	I - 3" x 6" SPECIMENS			
Cylinder	Test Date	Age	Curing (day	7	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
No.		(days)	Field	Lab		Strength (pei)	Type	Fracture	
NX-21A	20-Nov-96	7	1	. 6	See Remarks				
NX-21B	27-Nov-96	14	1	13	750	106			св
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Shear



Cone



Split



2

3

Remarks

Unable to break to weak

FRACTURE TYPE



						·					
Project		NAS Jax	PSC 42					Report No.		NX-20	
Location	<u> </u>	Jackson	ville, Flori	da				CSI Projec	t No.		
Architect / E	Ingineer	Bechtel	Envirome	ntal				Date	26-Nov-96		
Contractor		Bechtel I	Envirome	ntal	<u> </u>			Design Str	30 psi		
Supplier					·	· <u>-</u>		Mix Design	Sand Cement		
Date Cast	12-Nov-96	_ Date Re	ceived		14-Nov-96	Cylinders made by	BECHTEL	No. Submi	2		
	MATERIAL SC	N IBCE			BATCH DAT	Δ - 1 cu vd		FIELD TEST DATA			
Cement	MATERIAL	JUNCE		Cement	BATOLIBA		Slump, Ins.	1.000	·		
F.A.		-		F.A.			Ticket No.		- <u>-</u> ·		
C.A.				C.A.			Unit Wt:				
A.E.A.	·			Water			Temp., F: Air		Conc.		
Admix				A.E.A.		Admix.	Cubic Yds. Pl	aced			
Location of I		Cell 14A		201 577		t					
	1 7 . 5	, , 	a :			H - 3" x 6" SPECIMENS Compressive	Fracting	Aggregate	т т	ested by	
Cylinder No.	Test Date	Age (daya)	Curing (day Field	Lab	Total Load (lbs.)	Strength (pai)	Туре	Fracture	. ^	cated by	
NX-20A NX-20B	19-Nov-96 26-Nov-96	7 14	1	6 13	See Remarks 250	35			СВ		
					[



Shear



Cone



Split



2

A

Remarks

Unable to break to weak





Project	,	NAS Ja	x PSC 42			Report No.	NX-24			
Location		Jacksor	ville, Flori	da			·	CSI Project	No	
Architect / E	Engineer	Bechtel	Envirome	ntal		<u> </u>		Date	01-Jan-97	
Contractor		Bechtel	Envirome	ntal				Design Stre	ngth <u>30 psi</u>	
Supplier								Mix Design	No. Sand Cement	
Date Cast	18-Dec-96	_ Date R	eceived		20-Dec-96	No. Submitt	ed <u>2</u>			
<u>-</u>	MATERIAL SO	DURCE			BATCH DAT	TA - 1 cu.yd.		FIELD TES	T DATA	
Cement	112 (12) (2)	701100		Cement			Slump. Ins.			
F.A.				F.A.		Truck No.				
C.A.				C.A.			Unit Wt:		Time:	
A.E.A.				Water			Cubic Yds Pla		Conc.	
	<u> </u>			COMPRI	SSIVE STRENGT	H - 3" x 6" SPECIMENS				
Cylinder No.	Test Date	Age (days)	Curing (day Field	l)	Total Load (lbs.)	Compressive Strength (psi)	Fracture Type	Aggregate Fracture	Tested by	
NX-24A	25-Dec-96	7	1	6	60	20			LGG	
NX-24B	01-Jan-97	14	1	13	600	90			LGG	



Shear



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Cone



Split



3

4

Remarks





Project		NAS Jax PSC 42		· · · · · · · · · · · · · · · · · · ·		Report No	NX-25
Location		Jacksonville, Florida	·		<u>.</u>	CSI Project No.	
Architect / En	gineer	Bechtel Environmental			·	Date	09-Jan-97
Contractor		Bechtel Enviromental		· ·		Design Strength	30 psi
Supplier						Mix Design No.	Sand Cement
Date Cast	19-Dec-96	_ Date Received	21-Dec-96	_ Cylinders made by	BECHTEL	No. Submitted	3
						· · · · · · · · · · · · · · · · · · ·	

MATERIAL SOURCE	EATCH DATA - 1 cu.yd.	FIELD TEST DATA
Cement	Cement	Slump, Inc. Air, %
F.A.	F.A.	Ticket No. Truck No.
C.A.	C.A.	Unit Wt: Time:
A.E.A.	Water	Temp., F: Air - Conc.
Admix.	A.E.A. Admix	Cubic Yds. Placed

Location of Pour

Cell 16

COMPRESSIVE STRENGTH - 3" x 6" SPECIMENS												
Cylinder	Test Date	Age	Curing (day	3)	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by			
No.	<u> </u>	(daya)	Field	Lab		Strength (psi)	Турс	Fracture				
NX-25A	26-Dec-96	7	1	6	70	10			LGG			
NX-25B	02-Jan-97	14	1	13	90	10			LGG			
NX-25C	09-Jan-97	21	1	20	220	30			CB			

Shear Cone



Shear



Cone



Split



FRACTURE TYPE

1

2

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3

4

Remarks





Project	roject NAS Jax PSC 42								
Location	Jacksonville, Florid	ta	-			CSI Project No.			
Architect / Engineer	Bechtel Enviromer	ntal	· .			Date	09-Jan-97		
Contractor	Bechtel Enviromer	Design Strength	30 psi						
Supplier						Mix Design No.	Sand Cement		
Date Cast 19-Dec-96	Date Received		21-Dec-96	_ Cylinders made by	BECHTEL	No. Submitted	3		
MATERIAL SC	DURCE		BATCH DA	ΓA - 1 cu.yd.	T	FIELD TEST DATA	4		
Cement		Cement			Slump, Ins.	Air, %			
F.A.		F.A.			Ticket No.	Truck No			
C.A.	"	C.A.			Unit Wt:	Time;			
AEA		Water			Temp. F: Air	- Conc			
Admix.		AE.A		Admix.	Cubic Yds. Pl.	aced			
Location of Pour	Cell 17								
							·-		

				COMPRI	ESSIVE STRENGTH	I - 3" x 6" SPECIMENS		<u>, </u>		
Cylinder	Test Date	Age	Curing (day	a)	.Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by	
No.		(daya)	Field	Lab		Strength (psi)	Туре	Fracture	<u> </u>	
NX-26A	26-Dec-96	7	1	6	60	10			ree	
NX-26B	02-Jan-97	14	1	13	80	10			LGG	
NX-26C	09-Jan-97	21	1	20	250	40			СВ	
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Shear



Cone



Split



FRACTURE TYPE

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Remarks





Project	NAS Jax PSC 42	2				Report No	CON2795
Location	Jacksonville, Flo	rida				CSI Project No.	
Architect / Engineer	Bechtel Environ	ental				Date	13-Jan-97
Contractor	Bechtel Environ	ental	Design Strength	30 PS			
Supplier					<i>.</i>	Mix Design No.	
Date Cast 30-Dec-96	_ Date Received		31-Dec-96	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL S	OURCE		BATCH DA	TA - 1 cu.yd.		FIELD TEST DATA	
Cement		Cement			Slump. Ins.	Air, %	
F.A.		F.A.			Ticket No.	Truck No.	
C.A.		C.A.			Unit Wt:	Time;	
A.E.A.		Water			Temp., F: Air	Conc.	
Admix.		A.E.A.		Admix.	Cubic Yds. Pla	reed	

· · · · · · · · · · · · · · · · · · ·	COMPRESSIVE STRENGTH - 3" x 6" SPECIMENS												
Cylinder	Test Date	Age	Curing (day	R)	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by				
No.		(days)_	Field	Lab		Տնարջնի (թմ)	Туре	Fracture					
NX-2796A	06-Jan-97	7	1	6	200	30	1		LGG				
NX-2796B	13-Jan-97	14	1	13	450	60	1		LGG				

Shear



Cone



Split



FRACTURE TYPE

1

2

3

4

Remarks





Project		NAS Ja	x PSC 42			·		Report No.	_	CON28
Location	-	Jacksor	ville, Flori	da			-	CSI Projec	t No.	
Architect / E	ngineer	Bechtel	Envirome	ntal				Date		13-Jan-97
Contractor		Bechtel	Envirome	ntal				Design Stre	ength _	30 PSI
Supplier	Supplier							Mix Design	No.	
Date Cast	30-Dec-96	_ Date Re	eceived		31-Dec-96	_ Cylinders made by	BECHTEL	No, Submit	ted	2
	MATERIAL SO	OURCE		1	EATCH DA	ΓA - 1 cu.yd.		FIELD TES	T DATA	
Cement		·•		Cement			Slump. Ins.		Air, %	
F.A.				F.A.			Ticket No.		Truck No.	
C.A.				C.A.			Unit Wt:		Time:	
A.E.A.				Water		<u> </u>	Temp., F: Air		Conc	
Admix				A.E.A.		Admix	Cubic Yds. Pl	aced		
Location of F	our (Cell 19A	<u> </u>							
				COMPRI	ESSIVE STRENGT	H - 3" x 6" SPECIMENS				
Cylinder No.	Test Date	Age (dava)	Curing (day Field	a) Lab	Total Load (lbs.)	Compressive Strength (psi)	Fracture Type	Aggregate Fracture	Tes	ited by

•				COMPR	ESSIVE STRENGTH -				
Cylinder	Test Date	Age	Curing (day	73 <u>)</u>	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
No.		(days)	Field	Lab		Strength (psi)	Туре	Fracture	
X-2896A	06-Jan-97	7	1	6	1,000	140	1		LGG
X-2896B	13-Jan-97	14	1	13	2,500	350	1	:	СВ
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			'						

Shear Cone



Shear



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Cone

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Split



Remarks



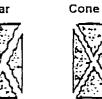


EMPINEE	TING RE									
Project		NAS Jac	x PSC 42			<u> </u>		Report No.	·	CON2996
Location		Jackson	ville, Flori	da	·			CSI Project No.		
Architect / E	ngineer	Bechtel	Enviromer	ntal				Date		14~Jan-97
Contractor		Bechtel	Enviromer	ntal		 		Design Stre	ength _	30 PSI
Supplier				 -				Mix Design	No.	
Date Cast	31-Dec-96	_ Date Re	eceived		01-Jan-97	_ Cylinders made by	BECHTEL	No. Submit	tted _	2
MATERIAL SOURCE				Ţ-	SATCH DAT	īA - 1 cu.yd.	 	FIELD TES		
Cement				Cement			Slump, Ins.		Air, %	
F.A				F.A.		·	Ticket No.		Truck No.	
C.A.				C.A.			Unit Wt:		Time:	
A.E.A.				Water			Temp_F: Air		Conc	
Admix				AEA		Admix.	Cubic Yds. Pl	aced		
Location of F	ont (Cell 198	and Cell	20B				:		
	· · · · · · · · · · · · · · · · · · ·									
	···			COMPT	ESSIVE STRENGT	H - 3" x 6" SPECIMENS				
Cylinder	Test Date	Age	Curing (day		Total Load (lbs.)	Compressive	Fracture	Aggregate	Test	ed by
No.	1 Pr Date	(dava)	Field	Lab	10021 (1021)	Strength (pai)	Type	Fracture		ca by
No.		(usys)	Ficial	Lau	 	Juneagur (124)	17/12		 -	
NX-2996A	07-Jan-97	7	1	6	200	30	1 1		L	GG
NY 2006B	14 125 97	1 44	1 4	12	450	60	1 1		ا د	P.

Cylinder	T⇔t Date	Age	Curing (day	3)	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
No.		(days)	Field	Lab		Strength (pai)	Type	Fracture	
NX-2996A	07-Jan-97	7	1	6	200	30	1		LGG
NX-2996B	14-Jan-97	14	1	13	450	60	1	.	СВ
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Shear



Split



FRACTURE TYPE

1

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A

Remarks





CONCRETE STRENGTH REPORT

CI CI CI									
Project		NAS Ja	x PSC 42		·			Report No.	NX-23
ocation	· · · · · · · · · · · · · · · · · · ·	Jacksor	ville, Flori	da	_ -—	··· 		CSI Project	No
rchitect / E	ingineer	<u>Bechtel</u>	Envirome	nta!		·		Date	06-Jan-9
ontractor	<u> </u>	Bechtel	Envirome	ntal				Design Stre	ngth 30 psi
Supplier			-					Mix Design	No. Sand Came
ate Cast	_16-Dec-96	_ Date R	eceived		18-Dec-96	Cylinders made by	BECHTEL	. No. Submitt	red
	MATERIAL SO	DURCE			BATCH DAT	TA - 1 cu.yd.		FIELD TES	T DATA
LINEIR				Cement			Slamp, Inc.		ለπ, %
<u> </u>			_: _	F.A.			Ticket No.		Truck No.
.A				C.A.			I mit Wt		Time:
E.A.				Water_		Advant.	Temp., F: Air Cabie Yds, P		Cime
denix				A.E.A.		70041	· /·· = /··· / / / / / /		 · ·
('ylinder	Test Date	Age	Corne (da		ESSIVE STRENGT	H · 3" x 6" SPECIMENS Compressive	Fraction	Aggregals	Tosted by
No		(days)	Field	Lab		Strongth (pri)	Type	jipatur	<u> </u>
NX-23A	23-Dec-95	7	1	6	50	10			LG
NX-23B	30-Dec-96	14	1	13	30	. 10			LG
NX-23C	05-Jan-97	21	1	20	300	51			ree.
•									
		ļ <u>.</u>			<u> </u>	<u> </u>	J		
				SI	near Cone	Shear C	one	Split	
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FRACTURE TYPE									
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em arks		 -		_ · –		 -	—.		.
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ENSINE	IIng									-
Project	<u> </u>	NAS Ja	x PSC 42	·		<u> </u>	_	Report No.	·	CON30
Location		Jackson	vile, Flori	da			<u>.</u>	CSI Projec	t No.	
Architect / E	ngineer	Bechtel	Envirome	ntal				Date		27-Jan-97
Contractor		Bechtel	Envirome	ntal			. <u> </u>	Design Stre	ength	30 PSI
Supplier		·				<u></u>	· -	Mix Design	No.	
Date Cast	13-Jan-97	_ Date Re	eceived		14-Jan-97	_ Cylinders made by	BECHTEL	No. Submit	tted	2
	MATERIAL S	OURCE		1	BATCH DA	TA - 1 cu.yd.		FIELD TES	ST DATA	
Cement				Cement		<u> </u>	Slump, Inc.		Air, %	_
F.A.	W.,			F.A.			Ticket No.		Trock No.	
C.A.				C.A.			Unit WE		Time:	
A.E.A.				Water			Temp., F: Air	<u>-</u>	Conc	
Admix.				A.E.A.		Admix	Cubic Yds. Pl	aced		
Location of F	Pour (Cell 21) 							
		"		COMPRI	SSIVE STRENGT	H - 3" x 6" SPECIMENS			···	_
Cylinder No.	Test Date	Age (days)	Curing (day Field	a) Lab	Total Load (Iba.)	Compressive Strength (psi)	Fracture Type	Aggregate Fractive	Te	sted by
NX-3096A	20-Jan-97	7	1	6	1,000	140	1,		- '	LGG
NX-3096B	27-Jan-97	14	1	13	1,500	210	1		!	LGG

Cylinder	Test Date	Age	Curing (day	78)	Total Load (Ibs.)	Compressive	Fracture	Aggregate	Tested by
No.	-	(daya)	Field	Lab	<u> </u>	Strength (pai)	Туре	Fracture .	·
NX-3096A	20-Jan-97	7	1	6	1,000	140	1, 1,		LGG
NX-3096B	27-Jan-97	14	1	13	1,500	210	1		LGG
				,				}	
	}							1	•

Shear



Split



FRACTURE TYPE

1

2

3

Remarks

Reviewed by

C. Staring



Project	NAS Jax PSC 42		· · · · · · · · · · · · · · · · · · ·	<u>,,</u>	Report No	NX34
Location	Jacksonville, Florida	•			CSI Project No.	
Architect / Engineer	Bechtel Environmental		· 		Date	31-Jan-97
Contractor	Bechtel Enviromental		··		Design Strength	30 PSI
Supplier					Mix Design No.	
Date Cast 17-Jan-97	_ Date Received	18-Jan-97	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL SO	OURCE	EATCH DA	TA - 1 cu.yd.	1	FIELD TEST DATA	
Cement	Cem		•	Slump, Inc.	Air, %	
F.A.	F.A.			Ticket No.	Track No.	
C.A.	C.A.			Unit Wt:	Time;	
A.E.A.	Wate	τ		Temp., F: Air	Conc.	
Admix.	A.E.,	A	Admix.	Cubic Yds. Pla	ced	
Location of Pour	Cell 21 RT				,	

	_			COMPR	ESSIVE STRENGTH -	3" x 6" SPECIMENS			
Cylinder	Test Date	Age	Curing (day		Total Load (ibs.)	Compressive	Fracture	Aggregate	Tested by
No.		(daya)	Field	Lah		Strength (psi)	Туре	Fracture	
NX-3496A	24-Jan-97	7	1	6	7,000	990	1		LGG
NX-3496B	31-Jan-97	14	1	13	8,200	1160	1		FA
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.			1						

Shear



Cone



Split



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4

Remarks

FRACTURE TYPE





NAS Jax PSC 42 Jacksonville, Florid Bechtel Enviroment Bechtel Enviroment Date Received JRCE	da	15-Jan-97 BATCH DAT	Cylinders made by A - 1 cu.yd. Admix	BECHTEL Slump. Ins. Ticket No. Unit We Temp. F: Air Cubic Yds. Pl	FIELD TES	28-Jan-9 ength 30 PS No.
Bechtel Enviroment Bechtel Enviroment Bechtel Enviroment Bechtel Enviroment Bechtel Enviroment Bechtel Enviroment	ntal Cement F.A. C.A. Water	15-Jan-97 BATCH DAT	Cylinders made by [A - 1 cu.yd. Admix.	Slump. Ins. Ticket No. Unit We Temp., F: Air	Date Design Stree Mix Design No. Submit	28-Jan-9 ength 30 PS No. ted T DATA Air, * Truck No. Time:
Bechtel Envirome	Cement F.A. C.A. Water	15-Jan-97 BATCH DAT	Cylinders made by [A - 1 cu.yd. Admix.	Slump. Ins. Ticket No. Unit We Temp., F: Air	Design Stre Mix Design No. Submit	ength 30 PS No. ted IT DATA Air. * Truck No. Time:
Bechtel Envirome	Cement F.A. C.A. Water	15-Jan-97 BATCH DAT	Cylinders made by [A - 1 cu.yd. Admix.	Slump. Ins. Ticket No. Unit We Temp., F: Air	Mix Design No. Submit	No. IT DATA Air, % Truck No. Time:
Date Received	Cement F.A. C.A. Water	BATCH DAT	A-1 cu.yd.	Slump. Ins. Ticket No. Unit We Temp., F: Air	No. Submit	T DATA Air, % Truck No. Time:
JRCE	F.A. C.A. Water	BATCH DAT	A-1 cu.yd.	Slump. Ins. Ticket No. Unit We Temp., F: Air	No. Submit	T DATA Air, % Truck No. Time:
JRCE	F.A. C.A. Water	BATCH DAT	A-1 cu.yd.	Slump. Ins. Ticket No. Unit We Temp., F: Air	FIELD TES	Air, % Truck No. Time:
	F.A. C.A. Water		Admix.	Ticket No. Unit Wt: Temp., F: Air		Air, % Truck No. Time:
	F.A. C.A. Water		Admix.	Ticket No. Unit Wt: Temp., F: Air		Truck No.
Cell 22	C.A. Water			Unit We Temp_ F: Air		Time:
cell 22	Water			Temp_ F: Air		
ell 22						Cont
ell 22	AEA			Cubic Yds. Pl	aced	
cell 22					:	
	CO) (Tra	recove empley com	H - 3" x 6" SPECIMENS			
Age Curing (day		Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
Age Curing (day (days) Field	Lab	1 Total Loza (III.)	Strength (pai)	Туре	Fracture	
7 1	6	500	70	1		LGG
14 1	13	600	80	1		LGG
1						
	7 1	7 1 6	7 1 6 500	7 1 6 500 70	7 1 6 500 70 1	7 1 6 500 70 1

Shear Cone

Shear



Cone



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A

Remarks





Project	NAS Ja	PSC 42				Report No.	. <u>NX3</u>
_ocation	Jackson	ville, Florida				CSI Projec	t No
Architect / Engineer	Bechtel	Enviromental	•			Date	29-Jar
Contractor	Bechtel I	Enviromental				Design Str	ength 30
Supplier						Mix Design	No
Date Cast15-Ja	n-97_ Date Re	ceived	16-Jan-97	_ Cylinders made by	BECHTEL	No. Submi	tted
MATER	IAL SOURCE		BATCH DA	TA - 1 cu.yd.	· · · · · · · · · · · · · · · · · · ·	FIELD TES	ST DATA
ement		Cement			Shamp. Inst.		Air, %
A_		F.A.			Ticket No.		Truck No.
A_		C.A.			Unit Wt:		Time:
E.A.		Water			Temp., F: Air		Conc.
lmix.		A.E.A.		Admix	Cubic Yda Pla	aced	
ocation of Pour	Cell 23						
		COMPRES	SSIVE STRENGT	H - 3" x 6" SPECIMENS			
Cylinder Test	Date Age	:	Total Load (Iba.)	Compressive	Fracture	Aggregate	Tested by
No.	(davs)	Field Lab		Strength (psi)	Type	Fracture	i -

				COMPRI	ESSIVE STRENGT	H - 3" x 6" SPECIMENS			
Cylinder	Test Date	Age	Curing (day	/B)	Total Load (Iba.)	Compressive	Fracture	Aggregate	Tested by
No.		(days)	Field	Lab]	Strength (psi)	Турс	Fracture	
NX-3296A	22-Jan-97	7	1	6	800	110	A1.		LGG
NX-3296B	29-Jan-97	14	1	13	1,000	140	1		LGG
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Shear



Split



FRACTURE TYPE

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2

3

Cone

4

Remarks





CIACINASE	-							
Project		NAS Ja	x PSC 42				Report No	NX33
Location		Jackson	rville, Florida	·		<u> </u>	CSI Project I	No
Architect / Er	ngineer	Bechtel	Enviromental				Date _	29-Jan-97
Contractor		Bechtel	Enviromental		<u>. </u>		Design Stren	gth 30 PS
Supplier				·			Mix Design N	lo
Date Cast	15-Jan-97	_ Date R	eceived	16-Jan-97	_ Cylinders made by	BECHTEL	No. Submitte	ed2
	MATERIAL SO			BATCH DA	TA - 1 cu.yd.	1	FIELD TEST	DATA
Cement	MATERIAL OC	<u> </u>	Cem		,	Slump. Ins.	A	ir, %
F.A.	 -		F.A.		<u> </u>	Ticket No.		ruck No.
C.A.			C.A.		· · · · · · · · · · · · · · · · · · ·	Unit Wt:	Т	ime:
4.E.A.			Wate			Temp_F: Air	- C	one.
Admix.			A.E.	A.	Admix.	Cubic Yds. Pla		
ocation of P	our (Cell 24)				· 	
					H - 3" x 6" SPECIMENS		·	
			CON	CODECCULE CLUE VII - I.				

Cylinder	Test Date	Age	Curing (day	a)	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
<u>No.</u>		(days)	Field	Lab		Strength (pai)	Туре	Fracture '	
NX-3396A	22-Jan-97	7	_ 1	6	200	30	1		LGG
NX-3396B	29-Jan-97	14	1	13	300	40	1		LGG
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Shear



Split



FRACTURE TYPE

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Remarks





Project		NAS Jax PSC 42	<u> </u>				Report No.	NX37
Location		Jacksonville, Flori	ida	·		·	CSI Project No.	
Architect / En	ngineer	Bechtel Environe	ntal				Date	30-Jan-97
Contractor		Bechtel Envirome	ntal		; 		Design Strength	30 PSI
Supplier							Mix Design No.	·· -
Date Cast	16-Jan-97	Date Received		17-Jan-97	_ Cylinders made by	BECHTEL	No. Submitted	2
	ATERIAL SO	OURCE	1	BATCH DA	ΓA - 1 cu.yd.		FIELD TEST DATA	
Cement			Cement			Slump. Ins.	Air, %	
F.A.			F.A.			Ticket No.	Truck No.	
C.A.			C.A.			Unit Wt:	Time:	
AEA			Water			Temp., F: Air	Conc	i
Admix			AEA		Admix	Cubic Yda, Pla	rced	
Location of Po	our (Cell 25A						
				· .				

				COMPR	ESSIVE STRENGTH -	3" x 6" SPECIMENS			
Cylinder	Test Date	Age	Curing (days)		Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
No.	[(days)	Field	Lab		Str ung th (psi)	Туре	Fracture	V 1.7.2.2.
NX-3796A	23-Jan-97	7	1 .	6	700	100	1		FA
NX-3796B	30-Jan-97	14	1	13	750	110	2		LGG
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					.				



Shear



Cone



Split

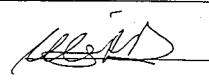


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Remarks

FRACTURE TYPE





Project	NAS Jax PSC 4	2		·		Report No	NX38
Location	Jacksonville, Flo	rida	-			CSI Project No.	
Architect / Engineer	Bechtel Environ	ental		. <u>.</u> .		Date	30-Jan-97
Contractor	Bechtel Envirom	ental	<u> </u>		<u> </u>	Design Strength	30 PS
Supplier	· .					Mix Design No.	·
Date Cast 16-Jan-9	Date Received		17-Jan-97	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL	SOURCE		BATCH DAT	TA - 1 cu.yd.	1	FIELD TEST DATA	
Cement		Cement			Slump. Ins.	Air, %	-
F.A.		F.A.	•		Ticket No.	Truck No.	
C.A.		C.A.			Unit Wt:	Time:	
A.E.A.		Water			Temp., F: Air -	Conc	
Admix		AE.A		Admix.	Cubic Yda Pla	ced	
Location of Pour	Cell 25B						

				COMPR	ESSIVE STRENGTH	- 3" x 6" SPECIMENS			
Cylinder	Test Date	te Age Curing (/s)	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
No.	[(daya)	Field	Lab		Strength (pai)	Турс	Fracture	•
NX-3896A	23-Jan-97	7	1	6	200	30	1		FA
NX-3896B	30-Jan-97	14	1	13	400	60	2		LGG
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Shear



Cone



Split



FRACTURE TYPE

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Remarks

Reviewed by

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Project	NAS Jax PSC 42			· ·		Report No.	NX36
Location	Jacksonville, Flori	da	•		<u> </u>	CSI Project No.	
Architect / Engineer	Bechtel Environe	ntal				Date	04-Feb-97
Contractor	Bechtel Environe	ntal		;		Design Strength	30 <u>PSI</u>
Supplier						Mix Design No.	
Date Cast 21-Jan-97	_ Date Received		22-Jan-97	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL SO	DURCE		BATCH DA	TA - 1 cu.yd.	1	FIELD TEST DATA	
Coment		Cement			Slump, Inc.	Air, %	·
F.A.		F.A.		·	Ticket No.	Truck No.	
C.A. A.E.A.		C.A.			Unit Wt:	Time:	
A.E.A.		Water			Temp., F: Air		
Admix		A.E.A.		Admix.	Cubic Yds. Pl	aced	
Location of Pour (Cell 26 East						
	~~··	COLERRE	CONT. CTUTNICT	TI THE CE SPECTA (CA)S			 ,

			COMPRI	ESSIVE STRENGTH -	3" x 6" SPECIMENS			
Test Date	Age			Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
<u>.</u>	(dayx)	Field	Lab		Strength (pai)	Type	Fracture	<u>+</u> .
28-Jan-97	7	1	6	500	70	1		LGG
04-Feb-97	14	1	13	500	70	1		LGG
	28-Jan-97	28-Jan-97 7	28-Jan-97 7 1	Test Date Age (days) Curing (days) 1 Lab 28-Jan-97 7 1 6	Test Date Age (days) Curing (days) Total Load (lbs.) 28-Jan-97 7 1 6 500	(days) Field Lab Strength (psi) 28-Jan-97 7 1 6 500 70	Test Date Age (days) Curing (days) Total Load (lbs.) Compressive Strength (psi) Fracture Type 28-Jan-97 7 1 6 500 70 1	Test Date Age Curing (days) Total Load (lbs.) Compressive Strength (psi) Type Fracture 28-Jan-97 7 1 6 500 70 1

Shear

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Cone



Split

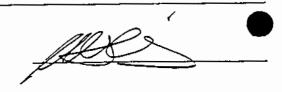


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Remarks

FRACTURE TYPE





ENGUNE										-
Project		NAS Ja	x PSC 42					_ Report No	ı	NX35
Location		Jacksor	rville, Flori	da				CSI Projec	t No.	
Architect / E	ngineer	Bechtel	Envirome	ntal				Date		03-Feb-97
Contractor		Bechtel	Envirome	ntal		·•		Design Str	ength	30 PS
Supplier	^2	•					nista i ara a	Mix Design	No.	
Date Cast	20-Jan-97	_ Date Ri	eceived		21-Jan-97	_ Cylinders made by	BECHTEL	No. Submi	tted	2
	MATERIAL S	OURCE		1	EATCH DA	TA - 1 cu.yd.		FIELD TE	ST DATA	\
Cement				Cement			Slump. Ins.		Air, %	
F.A.				F.A.			Ticket No.		Truck No.	
C.A.				C.A.			Unit Wt:		Time;	
A.E.A.				Water	_		Cubic Yda Pl		Conc.	
Admix				A.E.A.		Admix	Cubic 10C Pi	aceu		
Location of F	Pour	Cell 26A	\mathcal{L}					·		
						,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
							<u> </u>		::::	
				COMPRI	ESSIVE STRENGT	H - 3" x 6" SPECIMENS				
Cylinder	Test Date	Age	Curing (day	ns)	Total Load (lba.)	Compressive	Fracture	Aggregate	Te	sted by
No.		(days)	Field	Lab		Strength (pei)	Туре	Fracture		
NX-3596A	27-Jan-97	7	1	6	3,200	450	1			LGG
NX-3596B	03-Feb-97	14	1	13	4,500	640	1			FA



Shear



Cone



Split



FRACTURE TYPE

Remarks





EMENIMEE	F								
Project		NAS Ja	x PSC 42		·			Report No	NX3
Location	-	Jackson	ville, Flori	da	<u>.</u>		<u> </u>	CSI Project i	No
Architect / E	ngineer	Bechtel	Envirome	ntal				Date _	06-F _{eb-97}
Contractor		Bechtel	<u>Envi</u> rome	nta <u>l</u>				Design Strer	igth30 PS1
Supplier		_				<u></u>		Mix Design N	lo
Date Cast	23-Jan-97	_ Date Re	eceived		24~Jan <u>-</u> 97	_ Cylinders made by	BECHTEL	No. Submitte	ed2
	MATERIAL SO	DURCE			BATCH DAT	TA - 1 cu.vd.	 T	FIELD TEST	DATA
Cement		<u> </u>		Cement	<u> </u>	<u>, , , , , , , , , , , , , , , , , , </u>	Slump. Ira.		ir, %
F.A.				F.A.			Ticket No.		nick No.
C.A.				C.A.			Unit Wt:	Т	īme:
A.E.A.				Water			Temp., F: Air	- 0	one.
Admix				A.E.A.		Admix	Cubic Yda Pl		
		T	(- 1 -			I - 3" x 6" SPECIMENS	T * 1		
Cylinder No.	Test Date	Age (days)	Curing (day Field	a) Lab	Total Load (lbs.)	Compressive Strength (psi)	Fracture Type	Aggregate Fracture	Tested by
NX-3996A	30-Jan-97	7	1	6	1,000	140	1		LGG
NX-3996B	06-Feb-97	14	1	13	2,100	300	1		FA
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Shear

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Cone



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Split



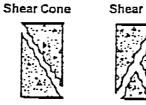
Remarks

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EMCIME										
Project		NAS Ja	ex PSC 42	! <u></u>				Report No.	1	X-42
Location		Jackso	nville, Flor	ida			•	CSI Project	No	
Architect / E	ngineer	Bechtel	Envirome	ntal		-		Date _	06-	-Feb-97
Contractor		Bechtel	Envirome	ntal	<u>-</u> .			Design Strer	ngth <u>5</u> (D PSI
Supplier								Mix Design 1	۱o	
Date Cast	30-Jan-97	_ Date R	eceived		01-Feb-97	_ Cylinders made by	BECHTEL	No. Submitte	ed	2
	MATERIAL SO	DURCE		1	EATCH DAT	TA - 1 cu vd	1	FIELD TEST	DATA	
Coment				Cement		174 - 1 00.) 4.	Slump, Ins.		ur, %	•
F.A.				F.A.			Ticket No.		nuck No.	
C.A.	-			C.A.			Unit Wt:	Time:		
A.E.A.			·	Water		<u>.</u>	Temp_F: Air		one.	
Admix				A.E.A.		Admix	Cubic Yda. Pla			
									-	
	1		la			H - 3" x 6" SPECIMENS	1 1			
Cylinder No.	Test Date	Age (days)	Curing (day	Lab	Total Load (lbs.)	Compressive Strength (psi)	Fracture Type	Aggregate Fracture	Tested b	у
NX-42-96A	06-Feb-97	7	1	6	1,500	210	V- 100		FA	
NX-42-96B	13-Feb-97	14	1	13						
						·	<u> </u>			



Cone

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Split



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Remarks

Reviewed by

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Project	ect NAS Jax PSC 42					Report No	NX-4
Location	Jacksonville, Flor	da			•	CSI Project No.	
Architect / Engineer	Bechtel Envirome	ntal	<u> </u>			Date	19-Feb- 97
Contractor	Bechtel Envirome	ntal		·	·	Design Strength	50 PSI
Supplier						Mix Design No.	
Date Cast 05-Feb-97 Date Received			07-Feb-97	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL SO	DURCE		BATCH DA	TA - 1 cu.yd.		FIELD TEST DATA	
Cement		Cement			Slump. Ins.	Air, %	
F.A.		F.A.			Ticket No.	Truck No	
C.A.		C.A.			Unit Wt:	Time:	
A.E.A.		Water			Temp., F: Air	- Conc.	
Admix		A.E.A.		Admix	Cubic Yds. Pla	red	
Location of Pour	Cell 29						······································

				COMPRI	SSIVE STRENGT	I - 3" x 6" SPECIMENS			
Cylinder	Test Date	Agt	Curing (day	3)	Total Load (lbs.)	Compressive	Fracture	Aggregate	. Tested by
No.		(days)	Field	Lab		Strength (psi)	Туре	Fracture	
NX-45-96A	12-Feb-97	7	···• 1 ···	6	100	10			LGG
NX-45-96B	19-Feb-97	14	1	13	400	60			LGG
			l						
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Split



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Remarks

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FRACTURE TYPE

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Project		NAS Ja	x PSC 42	<u>.</u>	 _			Report No	NX	<u> </u>
Location		Jackso	nville, Flor	ida			·	CSI Project I	No	
Architect / E	Ingineer	Bechtel	Envirome	ental				Date _	19-F	eb-9
Contractor	<u></u>	Bechtel	Envirome	ental	. 			Design Stren	igth <u>50</u>	PSI.
Supplier								Mix Design N	lo	
Date Cast	05-Feb-97	_ Date R	eceived		07-Feb-97	_ Cylinders made by	BECHTEL	No. Submitte	d <u>2</u>	2
	MATERIAL SO	DÜRCE			EATCH DAT	TA - 1 cu.yd.		FIELD TEST	DATA	
Cement		-		Cement			Slump, Ins.	A	ir. %	
F.A.				F.A.			Ticket No.		nuck No.	
C.A.				C.A.			Unit Wt:		ime:	
A.E.A.				Water			Temp., F: Air		one.	
Admix				A.E.A.		Admix.	Cubic Yde Pla	iced		
Cylinder	Test Date	Age	Curing (da	VR)	ESSIVE STRENGTI Total Load (lbs.)	I - 3" x 6" SPECIMENS Compressive	Fracture	Aggregate	Tested by	
No.		(days)	Field	Lab		Strength (psi)	Type	Fracture		
NX-44-96A	12-Feb-97	. 7	1	6	100	10		, in a set	LGG	
NX-44-96B	19-Feb-97	14	1	13	350	50			FA	
					·					
	<u>. </u>		<u> </u>	,	1		<u> </u>	I	- <u>-</u> -	
				Sh	ear Cone	Shear Co	ne World	Split		
	FRACTURE TYPE									
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Remarks										

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Project	NAS Jax PSC 42			•	·····	Report No.	NX-4
Location	Jacksonville, Flori	da	· 		·	CSI Project No.	
Architect / Engineer	Bechtel Environme	ntal				Date	18-Feb-97
Contractor	Bechtel Environmen	ntal				Design Strength	_ 50 PSI
Supplier						Mix Design No.	
Date Cast 04-Feb-97	_ Date Received		06-Feb-97	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL SO	DURCE	1	BATCH DA	TA - 1 cu.yd.	1	FIELD TEST DA	TA
Cement		Cement			Slump. Ins.	Air, %	
F.A.		F.A.			Ticket No.	Truck I	No.
C.A.		C.A.			Unit Wt:	Time:	
Λ.Ε.Α.		Water		<u></u>	Temp., F: Air	- Conc	1
Admix.		A.E.A.		Admix	Cuhic Yds. Pla	aced	!
Location of Pour	Cell 31					· · · · · · · · · · · · · · · · · · ·	
							

· ·				COMPR	ESSIVE STRENGTH	- 3" x 6" SPECIMENS			
Cylinder	Test Date	Age	Curing (day	3)	Total Load (lbs.)	Compressive	Fracture	Aggregate .	Tested by
No.		(days)	Field	Lab	<u> </u>	Strength (pai)	Туре	Fracture	
NX-43-96A	11-Feb-97	7	1	6	300	. 40			LGG
NX-43-96B	18-Feb-97	14	1	13	500	70			FA
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Shear

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Cone



Split



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Remarks

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FRACTURE TYPE

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Reviewed by

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V. HERMANN BAUER



Project		NAS Ja	x PSC 42			·		Report No.	NX-41
Location	•		nville, Flori					CSI Project	· · · · · · · · · · · · · · · · · · ·
Architect / E	ingineer	Bechtel	Envirome	ntal		··		Date	04-Feb-97
Contractor		Bechtel	Envirome	ntal		·- <u>-</u> -	<u></u> -	Design Stre	ngth <u>50 PSI</u>
Supplier		···			<u></u>			Mix Design I	No
Date Cast	28-Jan-97	_ Date R	eceived		30-Jan-97	_ Cylinders made by	BECHTEL	No. Submitte	ed <u>2</u>
	MATERIAL S	DURCE			EATCH DAT	FA - 1 cu.yd.		FIELD TEST	
Cement				Cement			Slump. Ins.		Air. %
F.A. C.A.				F.A.		** ·-·	Ticket No.		Truck No.
AEA.				Water		······································	Temp., F: Air		Lone.
Admix				A.E.A.		Admix.	Cubic Yds. Pl		
				201 201		V. A. CONTON TAIS			
Cylinder	Test Date	1 4	Curing (day			H - 3" x 6" SPECIMENS Compressive	Fracture	Aggregate	Tested by
No.	1est Date	Age (days)	Field	Lab	Total Load (lbs.)	Strength (psi)	Type	Fracture	1 Eren på
NX-41-96A	04-Feb-97	7	1	6	700	100	1.472756		LGG
NX-41-96B	11-Feb-97	14	1	13	800	110			LGG
			<u> </u>		<u> </u>		<u> </u>		

FRACTURE TYPE

Shear Cone

Shear

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Cone



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Split



Remarks

Reviewed by

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Project		NAS Ja	x PSC 42	····				Report No.	NX
Location	<u> </u>	Jacksor	ville, Flori	da				CSI Project No.	
Architect / E	ngineer	Bechtel	Envirome	ntal				Date	10-Feb-9
Contractor		Bechtel	Envirome	ntal				Design Strength	30 P
Supplier								Mix Design No.	
Date Cast	27-Jan-97	_ Date Re	eceived		28-Jan-97	_ Cylinders made by	BECHTEL	No. Submitted	
	MATERIAL S	DURCE		1	BATCH DAT	TA - 1 cu.yd.		FIELD TEST DATA	_
ement				Cement			Slump. Ins.	Air, %	
.A.				F.A.			Ticket No.	Truck No.	
				C.A.			Unit Wt:	Time:	
E.A.				Water			Temp., F: Air		
dmix				A.E.A.		Admix	Cubic Yds. Pla	ced	
	our (Cell 33							
ocation of F						T OF CAPACA CANA			
	1 T-t Duo	1 4-	Curing (day	'-		H - 3" x 6" SPECIMENS	Fracture	Aggregate Ter	ted by
Cylinder	Test Date	Age	Curing (day	3)	SSIVE STRENGTI Total Load (lbs.)	Compressive	Fracture Type	Aggregate Tes	sted by
	Test Date	Age (days)	Curing (day Field	'-			Fracture Type	Fracture	sted by



Shear



Cone

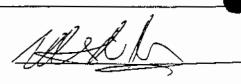


Split



FRACTURE TYPE

Remarks



Project	NAS Jax PSC 42	2			·	Report No	NX-45
Location	Jacksonville, Flor	ida			<u> </u>	CSI Project No.	
Architect / Engineer	Bechtel Environe	ental				Date	25-Feb-97
Contractor	Bechtel Environe	ental		<u> </u>	<u> </u>	Design Strength	50 PSI
Supplier				· ,	<u>, , , , , , , , , , , , , , , , , , , </u>	Mix Design No.	
Date Cast 11-Feb-97	_ Date Received		13-Feb-97	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL S	DURCE		EATCH DA	TA - 1 cu.yd.	··	FIELD TEST DATA	
Coment		Cement			Slump. Ins.	Air, %	
F.A.		F.A.			Ticket No.	Truck No.	
C.A.		C.A.			Unit Wt:	Time:	
AEA		Water			Temp., F: Air		
Admix		A.E.A.		Admix.	Cubic Yds. Pl		
Location of Pour	Cell 34						

						ESSIVE STRENGT	I - 3" x 6" SPECIMENS			
	Cylinder	Test Date	Age	Curing (day	78)	Total Load (Ibs.)	Compressive	Fracture	Aggregate	. Tested by
	No.		(days)	Field	Lab		Strangth (pai)	Type	Fracture	
	NX-46-96A	18-Feb-97	7	1	6	2,000	280			TA
	NX-46-96B	25-Feb-97	14	1	13	3,000	420			TA
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Cone



Split



FRACTURE TYPE

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Remarks

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Project	NAS Jax PSC 42				· <u> </u>	Report No.	NX-47
Location	Jacksonville, Florid	da	·		<u> </u>	CSI Project No.	
Architect / Engineer	Bechtel Environmen	ntal				Date	04-Mar-97
Contractor	Bechtel Enviromer	ntal			<u> </u>	Design Strength	30 PSI
Supplier			·			Mix Design No.	
Date Cast 18-Feb-97	Date Received		20-Feb-9 7	_ Cylinders made by	BECHTEL	No. Submitted	
MATERIAL SC	URCE		EATCH DAT	A - 1 cu.yd.		FIELD TEST DATA	
Coment		Cement			Slump, Ins.	Air, %	
F.A.		F.A.			Ticket No.	Truck No.	
C.A.		C.A.			Unit Wt:	Time:	
AEA		Water			Temp., F: Air	- Conc	
Admix.		A.E.A.		Admix	Cubic Yds. Pl	rced	
Location of Pour	Cell 35	<u></u>					

				COMPRI	ESSIVE STRENGTH	- 3" x 6" SPECIMENS			
Cylinder No.	Test Date	Age (daya)	Curing (day Field	z) Lab	Total Load (lbs.)	Compressive Strength (pai)	Fracture Type	Aggregate Fracture	. Tested by
NX-47-96A	25-Feb-97	7	1	6	350	50	1. 1.:		FA
NX-47-96B	04-Mar-97	14	1	13	1,000	140	1		TA

Shear



Split



FRACTURE TYPE

1

2

3

4

Remarks

RECEIVED

MAR 1 3 1997

Reviewed by

aff Story

V. HERMANN BAUER



Project	NAS Jax PSC 42		· · · · · · · · · · · · · · · · · · ·		Report No	NX-48
Location	Jacksonville, Flori	da .			CSI Project No.	
Architect / Engineer	Bechtel Environne	ntal			Date	05-Mar-97
Contractor	Bechtel Envirome	ntal	··		Design Strength	30 PSI
Supplier					Mix Design No.	
Date Cast 19-Feb-97	Date Received		21-Feb-97 Cylinders ma	de by <u>BECHTEL</u>	No. Submitted	2
MATERIAL SO	DURCE	Τ	BATCH DATA - 1 cu.yd.		FIELD TEST DATA	
MATERIAL SC	DURCE	Cement	BATCH DATA - 1 cu,yd.	Slump_Ins.	FIELD TEST DATA	
Cement	DURCE	Cement F.A.	BATCH DATA - 1 cu.yd.	Slump Ins.		
Cement	DURCE		BATCH DATA - 1 cu.yd.		Air. %	
Cement F.A. C.A.	DURCE	F.A.	BATCH DATA - 1 cu.yd.	Ticket No.	Air, % Truck No. Time:	
Cement F.A.	DURCE	F.A. C.A.	BATCH DATA - 1 cu.yd. Admix.	Ticket No. Unit Wt:	Air, % Truck No. Time: Conc.	

				COMPRI	SSIVE STRENGTI	I - 3" x 6" SPECIMENS			
Cylinder	Test Date	Age	Curing (day	3)	Total Load (lbs.)	Compressive	Fracture	Aggregate	Tested by
No.	<u></u>	(days)	Field	Lab		Strength (psi)	Type	Fracture	·
NX-48-96A	26-Feb-97	7	1	6	700	100	1		FA
NX-48-96B	05-Mar-97	14	1	13	1,000	140	1		TA
			.		1				
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Shear





FRACTURE TYPE

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3

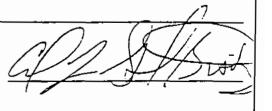
Cone

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Remarks RECEIVED

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V. HERMANN BAUER





Project	NAS Jax PSC 42			<u> </u>		Report No	NX-49
Location	Jacksonville, Florid	da	· 		<u> </u>	CSI Project No.	
Architect / Engineer	Bechtel Enviromer	ntal	. <u> </u>		<u></u>	Date	06-Mar-97
Contractor	Bechtel Enviromer	ntal		·		Design Strength	30 PSI
Supplier						Mix Design No.	
Date Cast 20-Feb-97	Date Received		22-Feb-97	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL SO	DURCE		BATCH DAT	TA - 1 cu.yd.		FIELD TEST DATA	
Cement		Coment			Slump. Ins.	Air, %	
		F.A.			Ticket No.	Truck No.	
F.A.		C.A.			Unit Wt:	Time;	-
A.E.A.		Water			Temp., F: Air	- Conc.	i
Admix.		A.E.A.		Admix	Cubic Yds. Pl	iced	
Location of Pour	Cell 37					;	

Cylinder	Test Date	Age	Curing (day	n)	Total Load (Ibs.)	Compressive	Fracture	Aggregate	Tested by	
No.		(days)	Field	Lab]	Strength (pai)	Туре	Fracture		
NX-49-96A	27-Feb-97	, 7	1	6	1,000	140	1		TA	
NX-49-96B	06-Mar-97	14	1	13	1,700	240	2		TA	

Shear .



Cone



Split



FRACTURE TYPE

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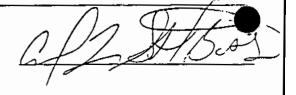
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MAR 1 3 1997

V. HERMANN BAUER





Project	NAS Jax PSC 42	··				Report No	NX-50
Location	Jacksonville, Flori	da	· 			CSI Project No.	<u>.</u>
Architect / Engineer	Bechtel Environe	ntal				Date	10-Mar-97
Contractor	Bechtel Envirome	ntal		,		Design Strength	50 PSI
Supplier		.				Mix Design No.	
Date Cast 24-Feb-97	_ Date Received		26-Feb-97	_ Cylinders made by	BECHTEL	No. Submitted	2
MATERIAL SC	DURCE	1	EATCH DA	TA - 1 cu.yd.	1	FIELD TEST DATA	
Cement		Cement			Slump, Ins.	Air, %	. .
F.A.		F.A.			Ticket No.	Truck No.	
C.A.	· · · · · · · · · · · · · · · · · · ·	C.A.			Unit Wt:	Time:	
A.E.A.		Water			Temp., F: Air	- Cone.	
Admix.		AE.A.		Admix	Cubic Yda Pl	eccd	
Location of Pour	Cell 38						
		COMPRE	SSIVE STRENGT	H - 3" x 6" SPECIMENS			

					COMPRI	SSIVE STRENGT	H - 3" x 6" SPECIMENS			
	Cylinder	Test Date	Age	Curing (day	1)	Total Load (lbs.)	Compressive	Fracture	Aggregate	. Tested by
	No.		(days)	Field	Lab		Strength (psi)	Type	Fracture	
	NX-50-96A	03-Mar-97	7	. 1.	6	300	40	2		FA
	NX-50-96B	10-Mar-97	14	1	13	800	110			cs !
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MAR 1 8 1997

V. HERMANN BAUER

Shear Cone



Shear



Cone



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Split



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Remarks

Project		NAS Jax PSC 42			<u> </u>	Report No	NX-
Location	<u> </u>	Jacksonville, Florida			·	CSI Project No.	
Architect / E	Engineer	Bechtel Enviromental				Date	09-Mar-97
Contractor		Bechtel Enviromental				Design Strength	30 PSI .
Supplier						Mix Design No.	
Date Cast	24-Feb-97	Date Received	26-Feb-97	_ Cylinders made by	BECHTEL	No. Submitted	2
	MATERIAL C	OURCE	CATCUDA	TA - 1 cu vd		FIELD TEST DATA	

MATERIAL SOURCE	EATCH C	ATA - 1 cu.yd.	FIELD	TEST DATA
Cement	Cement		Slump. Ins.	Air, %
F.A.	F.A.		Ticket No.	Truck No.
.A.	C.A.		Unit Wt	Time:
EA	Water		Temp., F. Air -	Conc
Admix	AEA	Admix	Cubic Yds, Placed	

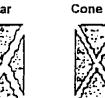
Location of Pour

Cell 39

				COMPR	ESSIVE STRENGTH	- 3" x 6" SPECIMENS			
Cylinder	Test Date	Age	Curing (day		Total Load (Ibs.)	Compressive	Fracture	Aggregate	Tested by
No.		(days)	Field	Lab	<u> </u>	Strength (psi)	Туре	Fracture	<u>.</u> .
NX-51-96A	03-Mar-97	7	1	6	90	10			- FA
NX-51-96B	09-Mar-97	13	1	12	300	40			cs
			'						

Shear Cone

Shear



Split



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Remarks

Contractor requested a 13 day break.

FRACTURE TYPE

RECEIVED

MAR 1 3 1997

Reviewed by

A HAUS

V. HERMANN BAUEP



ÇINDINEEN.	_									
Project		NAS Ja	PSC 42		<u> </u>	<u> </u>		Report No.		NX-52
Location	<u> </u>	Jackson	ville, Flori	da	·	<u> </u>		CSI Project	t No.	<u></u>
Architect / E	ngineer	Bechtel i	Envirome	ntal	. <u>.</u>			Date		09-Mar-9
Contractor		Bechtel	Envirome	ntal .				Design Stre	ength	30 psi
Supplier						<u></u>		Mix Design	No.	
Date Cast	23-Feb-97	_ Date Re	ceived		25-Feb-97	_ Cylinders made by	BECHTEL	No. Submit	ted	2
	MATERIAL SO	DURCE	<u> </u>	1	EATCH DAT	FA - 1 cu.vd.		FIELD TES	T DATA	
Cement	<u> </u>			Coment	<u> </u>	<u> </u>	Slump. Ins.		Air. 1	
F.A.				F.A.			Ticket No.		Truck No	
C.A.	·			C.A.			Unit Wt:		Time:	
A.E.A.				Water			Temp., F: Air	-	Conc.	
Admix.				A.E.A.		Admix	Cubic Yds. Pl	aced		
Location of F	Pour (Cell 40	<u> </u>				_			
				COMPRI	ESSIVE STRENGT	H - 3" x 6" SPECIMENS				
Cylinder No.	Test Date	Age (days)	Curing (day	(a) Lab	Total Load (lbs.)	Compressive Strength (pai)	Fracture Type	Aggregate Fracture	. T	ested by
NX-52-96A	02-Mar-97	7	1	6	300	40	2			FA
NX-52-96B	09-Mar - 97	14	1	13	450	60	2			cs
	1	1	I	1 '		l	1 1	i		

FRACTURE TYPE

Shear Cone

Shear



Cone



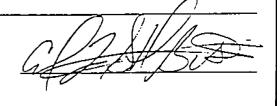
Split



RECEIVED

MAR 1 3 1997

V. HERMANN BAUER





	NAS Jax PSC 42					Report No.	NX-53
Project	NAS JAX FSC 42		 			CCI Design No	
Location	Jacksonville, Florid	la				CSI Project No.	
						Date	10-Mar-97
Architect / Engineer	Bechtel Enviromen	ital					
Contractor	Bechtel Enviromen	ntal		<u> </u>		Design Strength	30
Compactor						Mix Design No.	•
Supplier						· -	
Date Cast 26-Feb-97	Date Received		04-Mar-97	_ Cylinders made by	BECHTEL	No. Submitted	2
	NIBCE	,	EATCH DA	TA - 1 cu.yd.		FIELD TEST DATA	\ <u></u>
MATERIAL SO	JURCE	Cement	<u> </u>		Slump. Ins.	Air, %	
Cement		F.A.			Ticket No.	Truck No.	<u></u>
F.A		C.A.			Unit WE	Time:	
C.A		Water			Temp., F: Air	- Conc.	
AEA		AEA		Admix	Cubic Yds. P	laced	
Admix.							
Admic		11-11-11-1					
Location of Pour	Cell 41						

					SSIVE STRENGTH	Compressive	Fracture	Aggregate	Tested by
Cylinder	Test Date	Age	Curing (day:		Total Load (lbs.)	Strength (psi)	Type	Fracture ·	· · · · · · · · · · · · · · · · · · ·
No.		(days)	Field	Lab					_*?*
NX-53-96A	05-Mar-97	7	1	6	700	100	2	15-45-41	TA O
NX-53-96B	10-Mar-97	12	1	11	800	110	3		CS
							İ		
					<u> </u>		<u> </u>	<u> </u>	

Shear



Split



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RECEIVE Contractor requested a 12 day break

FRACTURE TYPE

MAR 1 3 1997

Reviewed by

Al Albert



Project	NAS Jax PSC 42	·				Report No.	NX-54
Location	Jacksonville, Florid	da				CSI Project No.	
Architect / Engineer	Bechtel Environmen	ntal				Date	17-Mar-97
Contractor	Bechtel Enviromer	ntal	. <u> </u>	<i>:</i>		Design Strength	30
Supplier						Mix Design No.	
Date Cast 03-Mar-97	Date Received		04-Mar-97	_ Cylinders made by	BECHTEL	No. Submitted	
MATERIAL SO	URCE		EATCH DA	TA - 1 cu.yd.		FIELD TEST DATA	
Cement	01144	Cement			Slump. Ins.	Air, %	
F.A.		F.A.			Ticket No.	Truck No.	
C.A.		C.A.			Unit Wt:	Time:	
AEA	<u></u>	Water			Temp_ F: Air	- Conc.	
Admix		A.E.A.		Admix	Cubic Yds. Pl:	ıced	
Location of Pour	Cell 42					:	

				COMPR	ESSIVE STRENGTH	- 3" x 6" SPECIMENS			
Cylinder	ylinder Test Date Age Curing (daya)		a)	Total Load (lbs.)	Compressive	Fracture		Tested by	
No.		(days)	Field La			Strength (psi)	Турс	Fracture .	
NX-54-96A	10-Mar-97	7	1	6	280	40			cs
NX-54-96B	15-Mar-97	14	1	13					
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Shear



Cone



Split



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Remarks

Contractor request if 7 day cylinder has a passing break - Do not break 14 day.

RECEIVED

FRACTURE TYPE

MAR 1 3 1997

Reviewed by



V. HERMANN BAUER

APPENDIX D

TOXICITY CHARACTERISTIC LEACHING PROCEDURE SAMPLING RESULTS

1 - INORGANIC ANALYSES DATA SHEET

	a = + '	
\mathtt{EPA}	SAMPLE	NO

Name: GENE		RING LABS	Contract: B	ECH00394	JX00514
		-			SDG No.: 65275T
Matrix (soil/w	ater): WATE	R	;	Lab Sampl	e ID: 9605275-01
Level (low/med): LOW				Date Rece	ived: 05/16/96
% Solids:	0.	0			
Cor	ncentration	Units (ug,	/L or mg/kg dr	y weight):	UG/L_
	CAS No.	Analyte	Concentration	C Q	M
Color Before:	7440-38-2 7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Cadmium Chromium Lead Nickel Silver	1.9 0.10 64.9 8.6 122 2.5		P P P P P P P P P P P P P P P P P P P
Color After:			y After:		Artifacts:
Comments:					

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ILM03.0

EPA SAMPLE NO.

		INOIGHUIC .	ANGELLE DITTI		1		
b Name: GEN	ERAL_ENGINE	ERING_LABS_	Contract:	BECH003	94_	JX00517SOL	
b Code:	Ca	ase No.:	SAS No	· :		SDG No.: 654	567
	water): WATE					ID: 9605456	
	d): LOW_			Date	Recei	ved: 05/28/9	6
	0.						
			/L or mg/kg d	ry weig	ht):	UG/L_	
	CAS No.	Analyte	Concentration	n C Q	М	_	
	7440-43-9 7440-47-3 7439-92-1	Chromium_	0.2 63.	7	D, D,	-	
	7440-02-0	Nickel	12:		P		
						_ _ _	
						-	
						- - -	
						- - -	
						- - -	
						-	
or Before:		Clarit	y Before:		Te	exture:	
or After:		Clarity	y After:		Ar	tifacts:	
ments:	-						_
							<u>-</u>
		FO	NI - I MS			ILMO	-)3.
			Y RAC PROBECHTEL ID			57-206	
	. •	00	1-0205-0	02-01			

(Ce.112)

SUBMIL

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SEQ

EPA SAMPLE NO.

Name: GEN	ERAL_ENGINES	RING_LABS	Contract: B	_ ECH00394_	JX00516
		•			SDG No.: 65372T
Matrix (soil/	water): WATE	R		Lab Samp	ole ID: 9605372-01
Level (low/med	d): LOW_	→		Date Rec	:eived: 05/22/96
% Solids:	0 <i>.</i>	0			
Co	oncentration	Units (ug	/L or mg/kg dry	y weight)	: UG/L_
· ·	CAS No.	Analyte	Concentration	C Q	М
	7440-38-2 7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Arsenic Cadmium Chromium Lead Nickel Silver	11.4 0.94 52.4 30.7 190 2.5	3	
Color Before:		Clarit	y Before:		Texture:
Color After:		Clarit	y After:		Artifacts:
Comments:	-				
			AVY RAC PROBECHTEL ID 001-0203-	NUMBE	R:

(Ce113)3

EPA SAMPLE NO.

r l Namo CPNI	PONT PNOTNER	ים דאוכ דאם פ	_ Contract: B	ECH00394	JX00522	ند
					SDG No.: 66264T	
Matrix (soil/					ole ID: 9606264-02	
Level (low/med	d): LOW_	_		Date Rec	eived: 06/14/96	
% Solids:	0.	0			·	
Co	oncentration	Units (ug	//L or mg/kg dr	y weight)	: UG/L_	
		<u> </u>			T	
	CAS No.	Analyte	Concentration	C Q	M	
	7440-43-9		0.20		P	
	7440-47-3 7439-92-1	Chromium_ Lead	71.3	-	p p p	
	7440-02-0	Nickel	209		- <u></u> -	
	7440-22-4	Silver	1.0		P_	
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				-	·	
Color Before:		Clari	ty Before:		Texture:	
Color After:		Clari	ty After:		Artifacts:	
Comments:						
		<u> </u>				
		F	DRM I - IN		ILM03.0	
		N	NAVY RAC PRO	DJECT :	22567-2010	
			BECHTEL ID			
			001-0208-	002-01	1	
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SUBMTL

EPA SAMPLE NO.

		INORGANIC .	ANALYSES DATA :	SHEET	l
T. M. Name: GENE			Contract: B		JX00519
Law Code:					SDG No.: 66092T
Matrix (soil/w	 -		;		le ID: 9606092-02
Level (low/med	d): LOW_			Date Rec	eived: 06/06/96
% Solids:	0.	0			
Co	ncentration	Units (ug	/L or mg/kg dry	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	C Q	М
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Chromium_ Lead_ Nickel	0.30 29.7 7.1 179 1.0		
Color Before:			ty Before:		Texture:
Color After:		Clari	ty After:		Artifacts:
Comments:	-				
·		F	ORM I - IN	<u>,</u>	ILMO3.

NAVY RAC PROJECT 22567-206
BECHTEL ID NUMBER:
001-0206-002-01
SC/PO . SEQ SHT SUBMIL

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EPA SAMPLE NO.

Lab Name: GENE	RAL_ENGINEE	RING_LABS_	Contract: B	ECH00394_	JX00518
Lab Code:	Ca	se No.:	SAS No.	:	SDG No.: 66092T
Matrix (soil/w	ater): WATE	Ř		Lab Sampi	le ID: 9606092-01
Level (low/med): LOW_	_		Date Rece	eived: 06/06/96
% Solids:	0.	0			
Co:	ncentration	Units (ug	/L or mg/kg dr	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	C Q	м
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Chromium_ Lead_ Nickel_	0.62 138 8.0 145 1.0		
	-				Tartuma .
Color Before:			y Before:		Texture:
Color After:		Clarit	y After:		Artitacts:
Comments:	-				<u>,</u> ,
			RM I - IN	ST 22567	ILM03.0

BECHTEL ID NUMBER: 001-0206-002-01

. SEQ

SC/PO

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SUBMTL

EPA SAMPLE NO.

I Name: GENE	RAL_ENGINEE	RING_LABS_	Contract: B	ĖСН00394 <u> </u>	0.00321	
Lab Code:	Ca	se No.:	SAS No.	:	SDG No.:	66264T
Matrix (soil/w	water): WATE	R	•	Lab Sampl	e ID: 9606	264-01
Level (low/med	l): LOW_	_		Date Rece	ived: 06/1	4/96
% Solids:	0.	0				
Co	ncentration	Units (ug,	/L or mg/kg dr	y weight):	UG/L_	·
	CAS No.	Analyte	Concentration	C Q	M	
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Chromium_ Lead	0.20 11.7 6.0 169 1.0			
Color Before:	. *	Clarit	y Before:		Texture:	
Color After:		Clarit	y After:		Artifacts:	
Comments:						
		TC.	ORM I - IN			 ILM03.0
		NA'	Y RAC PROJ BECHTEL ID I 001-0208-0	NUMBER: 0 0 2 - 0 <u>1</u>	607-206 SUBMTL	006

EPA SAMPLE NO.

Lab Name: GEN	ERAL_ENGINEE	RING_LABS_	Contract: B	ECH00394_	0.000320
Lab Code:		se No.:	SAS No.	:	SDG No.: 66092T
Matrix (soil/	water): WATE	R	";	Lab Sampl	le ID: 9606092-03
Level (low/med	d): LOW_	_		Date Rece	eived: 06/06/96
% Solids:	0.	0			
. Co	oncentration	Units (ug	/L or mg/kg dr	y weight):	. UG/L_
	CAS No.	Analyte	Concentration	C Q	М
	7439-92-1 7440-02-0	Chromium	0.50 27.5 10.7 183 1.0		
Color Before:	•	Clarit	y Before:		Texture:
Color After:			y After:		Artifacts:
Comments:				·	·
		77.44			
		FC	RM I - IN		ILM03.0
		NAVY	RAC PROJECT	22567	206
		BEC	CHTEL ID NUM	ABER:	

001-0206-002-01

·SEQ

SC/PO

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(Cell 2)

SUBMTL

EPA SAMPLE NO.

Name: GENE	RAL_ENGINEERING_LABS_	Contract: BE	ECH00394_	JX00564SLG
	Case No.:			SDG No.: 69364T
atrix (soil/w	ater): WATER	÷	Lab Sample	e ID: 9609364-04
evel (low/med): LOW		Date Rece	ived: 09/19/96
Solids:	0.0			
Co	ncentration Units (ug	/L or mg/kg dry	weight):	UG/L_
	CAS No. Analyte	Concentration	C Q I	1
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4 Silver	0.20 54.5 23.9 98.5 1.0		
lor Before:		ty Before:		Texture:
7 7 7 1	Clari	ty After:	-	Artifacts:
lor After:				

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EPA SAMPLE NO.

SUBMTL

Cell 9

SEQ SHT

		INORGANIC .	ANALYSES DATA	SHEET	
- 1 Maria (IDN	mnar maratamer	ממגן מחדש	Contract: B	ECH00394	JX00542
					SDG No · CCREE
	•				SDG No.: 66265T
Matrix (soil/	water): WATE	R	•	_	e ID: 9606265-01
Level (low/me	d): LOW_	_		Date Rece	ived: 06/14/96
% Solids:	0.				
C	oncentration	Units (ug/	/L or mg/kg dr	y weight):	UG/L_
	CAS No.	Analyte	Concentration	C Q	м
			3.0 0.20 118 6.6 94.7 1.0	U	
Color Before:		Clarit	y Before:		Texture:
Color After:		Clarit	y After:	·	artifacts:
Comments:	_				
		FO	NI - I M		ILM03.0
		B;	RAC PROJE CHTEL ID NI 1-0209-00	UMBER:	7-206

EPA SAMPLE NO.

RGANIC	ANALYSES	DATA	SHEET]
				TYPOSCOSIC

. **.						JX00560SLG	
La Name: GENE	RAL_ENGINEE	RING_LABS_	Contract: B	ECH00	394_		
Lab Code:	. — Ca:	se No.:	SAS No.	:		SDG No.: 693	64T
Matrix (soil/w		•	;	Lab	Sample	∍ ID: 9609364	-01
Level (low/med				Date	Recei	ived: 09/19/9	6
% Solids:	0.						
Co	ncentration	Units (ug,	/L or mg/kg dr	y wei	ght):	UG/L_	
	CAS No.	Analyte	Concentration	C	Q N	M	
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Chromium_ Lead	0.28 33.3 21.8 220 1.1				
Color Before:			ty Before:			Texture:	
Color After:		Clari	ty After:			Artifacts: _.	
Comments:	•					·	
							_
			ORM I - IN			IIA	 403.(
			NE DAC DE	ECT	2256	7-206	

05

EPA SAMPLE NO.

Lab	Name:	GENERAL_	_ENGINEERING_LABS_	Contract: BECH00394_	JX00561SLG
lab	Code:		Case No.:	SAS No.:	SDG No.: 69364T

Matrix (soil/water): WATER Lab Sample ID: 9609364-02

Level (low/med): LOW___ Date Received: 09/19/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

. —			_	, 	.
CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	0.30	B		<u>p</u>
7440-47-3 7439-92-1	Chromium_ Lead	23.8	 		ו טיטיטי
7440-02-0 7440-22-4	Nickel Silver	122	ਹ		P_
			_ _		
			_		_
			_		_
			_		_
					_
			_		=
					_
			_		_
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					=

Color Before:		Clarity	Before:	 Texture: _	
Color After:		Clarity	After:	 Artifacts: _	
Comments:	-			·	

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Cell 10) 10

EPA SAMPLE NO.

Name: GENE	RAL_ENGINEE	RING_LABS_	Contract: B	ECH	00394_	JX00562SLG
Lab Code:	Ca	se No.:	SAS No.	: _		SDG No.: 69364I
Matrix (soil/w	ater): WATE	R	,	Lal	b Samp	le ID: 9609364-03
Level (low/med): LOW_	_		Dai	te Rec	eived: 09/19/95
% Solids:	0 -	0				
Co	ncentration	Units (ug	/L or mg/kg dr	y we	eight)	: UG/L_
	CAS No.	Analyte	Concentration	C	Q	М
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Chromium_ Lead_ Nickel	0.21 36.7 22.2 120 1.0	- -		
olor Before:		Clarit	y Before:			Texture:
olor After:		Clarit	y After:			Artifacts:
Omments:						

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(Cell 11) 11

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EPA SAMPLE NO.

JX00566SLG Lab Name: GENERAL_ENGINEERING_LABS_ Contract: BECH00394_ Lab Code: Case No.: ____ SAS No.: SDG No.: 69520T Matrix (soil/water): WATER Lab Sample ID: 9609520-01 Date Received: 09/26/96 Level (low/med): LOW __0.0 % Solids: Concentration Units (ug/L or mg/kg dry weight): UG/L CAS No. Analyte Concentration C 3.0 U 7440-43-9 Cadmium p-40.9 7440-47-3 Chromium 61.5 T Þ_ 7439-92-1 Lead ₽-73.3 7440-02-0 Nickel [10.0 ប៊ 7440-22-4 Silver

	· ——- ·		
Còlor Before:	·	Clarity Before:	Texture:
Color After:		Clarity After:	Artifacts:
Comments:	•		
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FORM I - IN

NAVY RAC PROJECT 22587-206 ILM03.0

SECHTEL IC NUMBER:

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Cell 10/11 west

EPA SAMPLE NO.

Name: GENER	AL ENGINEERING LABS	Contract: BECH00394_	JX00573SLG
		SAS No.:	
Matrix (soil/wat	-	<i>;</i>	ole ID: 9611060-01
Level (low/med):		Date Rec	eived: 11/05/96
% Solids:	-		
•		g/L or mg/kg dry weight)	: UG/L_
7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	TAS No. Analyte 7440439 7440473 7439921 7440020 74400224 Silver	Concentration C Q	M
Color Before: _	Clari	ty Before:	Texture:
Color After:		ty After:	Artifacts:
Comments:	F	NAVY RAC PROJECT BECHTEL ID NU 001-0227-00	

EPA SAMPLE NO.

Lab Name: GENE	ERAL ENGINEE	RING LABS	Contract: B	ECH	H00394_	. JX00584SLG
						SDG No.: 6B368T
Matrix (soil/w						ele ID: 9611368-01
Level (low/med	d): LOW_	_		Da	ate Rec	eived: 11/21/96
% Solids:	0.	0				
Co	ncentration	Units (ug	/L or mg/kg dr	y w	veight)	: UG/L_
	1	1				
	CAS No.	Analyte	Concentration	C	Q	M
	7440382 7440439	Arsenic Cadmium	8.9			P
	7440473	Chromium_	43.5			P
	7439921 7440020	Lead Nickel	22.8	_		p_
•				-		_
				-		<u> </u>
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				!_		l
Color Before:		Clarit	y Before:			Texture:
Color After:		Clarit	y After:			Artifacts:
Comments:						
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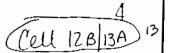
FORM I - IN

EPA SAMPLE NO.

Lab Name: GENE		DING IADS	Contract: 1	BECH00394	JX00582SLG
Lab Name: GENI	-C- -CAL_ENGINEE	ee No . KindTheboT	SAS No	. :	SDG No.: 6B266T
			••		le ID: 9611266-01
Matrix (soil/v				_	eived: 11/14/96
Level (low/med				Date noo	
% Solids:	0.		,,	- 1 - 3- 4- 1	
Co	oncentration	Units (ug	/L or mg/kg di	ry weight):	: UG/L_
	CAS No.	Analyte	Concentration	n C Q	м
	7440439	Cadmium_	0.20	<u>ס</u>	<u> </u>
	7440473 7439921	Chromium_ Lead	20.3	3 _	<u>p </u>
	7440020	Nickel Silver	120		
	7440224	Silver			
				- -	
				-	
				- -	
				- -	_
				-	
				-	
				- -	
				- -	
		·		_	!
Color Before:	<u> </u>	Clarit	y Before:		Texture:
Color After:		Clarit	y After:		Artifacts:
Comments:	• .				_

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1 INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

Lab Name: GE	NERAL_ENGINE	ERING_LABS_	Contract: B	ECH0039	94_ JX00586SLG
					SDG No.: 6B368T
Matrix (soil,	/water): WATE	ER		Lab Sa	mple ID: 9611368-03
Level (low/me	ed): LOW_			Date R	eceived: 11/21/96
% Solids:	0.	0			
C	Concentration	Units (ug	/L or mg/kg dr	y weigh	t): UG/L_
	CAS No.	Analyte	Concentration 2.0	1 1	M P
	7440439 7440473 7439921 7440020	Cadmium_ Chromium_ Lead_ Nickel	0.20 126 18.7 42.3		P P P P P P P P P P P P P P P P P P P
±+					
Color Before:	***************************************	Clarit	y Before:		Texture:
Color After:	4	Clarit	y After:	<u> </u>	Artifacts:
Comments:					
·				,	

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

Name GENE	RAL_ENGINEERI1	NG LABS	Contract: B	ECH00394	JX00585SLG
					SDG No.: 6B368T
Matrix (soil/w					le ID: 9611368-02
Level (low/med): LOW		-	Date Rec	eived: 11/21/96
% Solids:	0.0				•
· Co	ncentration Ur	nits (ug/	/L or mg/kg dry	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	C Q	М
	7440439 Ca 7440473 Ch 7439921 Le	rsenic_ admium_ iromium_ ead ickel_	6.4 0.29 111 21.0 59.1	В	
Color Before:	- -	Clarit	y Before:		Texture:
Color After:		Clarit	y After:		Artifacts:
Comments:	-				
					TI.MO3. 0

14

1 INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

Lab Name: GEN	JERAL ENGINES	RING LABS	Contract: B	ECH00394_	JX00596SLG
					SDG No.: 6C511T
Matrix (soil/	water): WATE	IR		Lab Sampl	le ID: 9612511-01
Level (low/me	ed): LOW_	·		Date Rece	eived: 12/30/96
% Solids:	0.	0			
C	Concentration	Units (ug	/L or mg/kg dr	y weight):	UG/L_
	CAS No.	Analyte	Concentration	C Q	м
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Cadmium Chromium Lead Nickel Silver	0.30 135 2.5 89.5 0.76	B	
Color Before:	. <u>.</u>	Clarit	y Before:		Texture:
Color After:		Clarit	y After:		Artifacts: ·
Comments:					

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FORM I - IN

1 EPA SAMPLE NO.

A Mos		INORGANIC	ANALYSES DATA	SHEET	
Lab Name: GEN	ERAL ENGINEE	RING LABS	Contract: B	ECH00394_	JX00597SLG
					SDG No.: 6C511T
Matrix (soil/			· ·		ole ID: 9612511-02
Level (low/me	d): LOW_	_		Date Rec	eived: 12/30/96
% Solids:	0.	0			
Co	oncentration	Units (ug	/L or mg/kg dr	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	c Q	М
	7439-92-1	Cadmium_Chromium_Lead_Nickel_Silver	0.30 47.2 2.5 126 0.95	B	
Color Before:		Clarit	y Before:		Texture:
Color After:		Clarit	y After:		Artifacts:
Comments:			-		
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FORM I - IN

I INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

Matrix (soil/wa Level (low/med) % Solids:	Case ater): WATER : LOW0.0	No.:	SAS No.	:	SDG No.: 6C511 le ID: 9612511-0 eived: 12/30/96
Matrix (soil/wa Level (low/med) % Solids:	ter): WATER : LOW0.0		•	Lab Samp	le ID: 9612511-0.
% Solids:	0.0	nits (ug/		Date Rece	eived: 12/30/96
Cond		nits (ua/			,,
	centration U	nits (ug/			
		(~9/	'L or mg/kg dry	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	C Q	М
	7440-47-3 CI 7439-92-1 Le 7440-02-0 Ni	ead _	0.30 48.7 1.4 196 0.74	Ū	בת מת מת מת מת מת מת מת מת מת מת מת מת מת
Color Before:		Clarity	Before:		Texture:
Color After: .—		Clarity	After:	··· ·	Artifacts:
Comments:	•				
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EPA SAMPLE NO.

Name: GENERAL_ENGINEERING_LABS_ Contract: BECH00394_					JX00599SLG
					SDG No.: 71168T
Matrix (soil/water): WATER Lab Sample ID: 9701168-0					
Level (low/med): LOW			Date Received: 01/10/97		
% Solids:	0.	0			
Co	oncentration	Units (ug	/L or mg/kg dr	y weight): UG/L_
	CAS No.	Analyte	Concentration	C Q	M
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Cadmium_Chromium_Lead_Nickel_Silver_	0.30 38.6 2.6 181 0.70	B	
Color Before:	Clarity Before:				Texture:
Color After:	: Clarity After:				Artifacts:
Comments:					

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FORM I - IN

EPA SAMPLE NO.

ERAL_ENGINEE	RING_LABS_	Contract: B	SECH00394	JX00600SLG
Ca	se No.:	SAS No.	:	SDG No.: 710883
water): WATE	R		Lab Sam	ple ID: 9701088-01
d): , LOW_	_		Date Re	ceived: 01/08/97
0.	0			
oncentration	Units (ug	/L or mg/kg dr	y weight): UG/L_
CAS No.	Analyte	Concentration	C Q	М
7440-47-3 7439-92-1	Chromium	47.1 1.6 75.6	B	
	Claric	v Before:		_ Texture:
				Artifacts: '
		_		
			CT 225	ILM03.
	Cawater): WATE d): LOW0. oncentration CAS No. 7440-43-9 7440-47-3 7439-92-1 7440-02-0	Case No.:water): WATER d):	Case No.:SAS No. water): WATER d):	Date Reserved Date Reserve

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EPA SAMPLE NO.

		INORGANIC .	ANALISES DATA	Surri	·
Lab Name: GENE	ERAI, ENGINEE	RING LABS	Contract: B	ECH00394_	JX00590SLG
					SDG No.: 6C511T
					le ID: 9612511-04
Matrix (soil/v				_	
Level (low/med	i): LOW_	_		pace Rec	eived: 12/30/96
% Solids:	0.				
Cc	ncentration	Units (ug	/L or mg/kg dry	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	C Q	М
	7440-43-9 7440-47-3	Cadmium_Chromium_Lead Nickel Silver	0.30 51.9 1.4 150 0.84	TO TO	Por por por por por por por por por por p
Color Before:		Clarit	y Before:		Texture:
Color After:		Clarit	y After:		Artifacts:
Comments:					

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1 INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

Lab Name: GEN	ERAL ENGINEE	RING LABS	Contract: B	ECH	100394_	JX00591SLG
						SDG No.: 6C511T
Matrix (soil/v	water): WATE	R	••	La	ib Samp	ole ID: 9612511-05
Level (low/med	i): LOW_	_		Da	te Rec	ceived: 12/30/96
% Solids:	0.	0				
Co	oncentration	Units (ug	/L or mg/kg dr	y w	eight)	: UG/L_
	CAS No.	Analyte	Concentration	c	Q	М
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Cacmium Chromium Lead Nickel Silver	0.30 256 2.3 125 0.70	B		P. p. p. p. p. p. p. p. p. p. p. p. p. p.
Color Before:		Clarit	y Before:			Texture:
Color After:		Clarit	y After:			Artifacts:
Comments:	-					
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Cell 20B 09

EPA SAMPLE NO.

Dab Name: GEN	EŖAL_ENGINEE	RING_LABS_	Contract: B	ECH00394_	JX00601SLG
Lab Code:	Ca	se No.:	SAS No.	:	SDG No.: 71088T
Matrix (soil/	water): WATE	R	.•	Lab Samp	le ID: 9701088-02
Level (low/me	d): LOW_			Date Rec	eived: 01/08/97
% Solids:	0 .	0			
C	oncentration	Units (ug	/L or mg/kg dr	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	C Q	М
	7439-92-1 7440-02-0	Cadmium_Chromium_Lead Nickel_Silver_	0.38 50.9 1.4 226 0.70	<u></u>	
Color Before:		Clarit	y Before:		Texture:
Color After:		Clarit	y After:		Artifacts:
Comments:					

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Cell 20B 20B

FORM I - IN

EPA SAMPLE NO.

Lah Name: GFN	ERAL ENGINEER	ING LABS	Contract: B	ECH00	394	JX00650SLG
	•					SDG No.: 71255
Matrix (soil/	water): WATER				,	e ID: 9701255-0
Level (low/med	d): LOW			Date	Rece:	ived: 01/15/97
% Solids:	0.0					
Co	oncentration (Jnits (ug,	/L or mg/kg dry	y weig	ght):	UG/L_
	CAS No.	Analyte	Concentration	c (2 1	4
	7440-43-9 C	Cadmium	0.30	╗ —		-
	7440-47-3 C	Chromium	70.2			5- - -
		Lead Nickel	$\frac{2.8}{56.7}$	B		<u>-</u>
		ilver	0.70			
				-	-	
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				-	-	
				-	-	_
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Color Before:		Clarit	y Before:		Т	exture:
Color After:		Clarit	y After:		A	rtifacts:
Tomments:						

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EPA SAMPLE NO.

Name: GEN	ERAL ENGINEE	RING LABS	Contract: B	ECH00394	JX00653SLG
	• —				SDG No.: 71369T
Matrix (soil/	water): WATE	R	<i>;</i>	Lab Samp	ple ID: 9701369-01
Level (low/med	d): LOW_	-		Date Rec	ceived: 01/21/97
% Solids:	0.	0			
Co	oncentration	Units (ug	/L or mg/kg dr	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	C Q	M
		Cadmium_Chromium_Lead Nickel Silver_	0.30 52.9 4.1 80.0 0.70	B	
Color Before:		Clarit	y Before:		Texture:
Color After:		Clarit	y After:		Artifacts: '
Comments:					
		FO	RM T - TN		<u> II.</u> M03.0

EPA SAMPLE NO.

Lab Name: GEN	NERAL ENGINEES	RING LABŚ	Contract: B	ECH00394_	JX00654SLG
	•				SDG No.: 71369T
Matrix (soil,	/water): WATER	ł	-	Lab Samp	le ID: 9701369-02
Level (low/me	ed): LOW	-		Date Rec	eived: 01/21/97
% Solids:	0.0)			
	Concentration	Units (ug	/L or mg/kg dr	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	C Q	М
	7439-92-1 7440-02-0	Cadmium_Chromium_Lead_Nickel_Silver_	0.43 44.0 2.7 168 0.70	B	
Color Before:		Clarit	y Before:		Texture:
Color After:	. — ———	Clarit	y After:		Artifacts:
Comments:					

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FORM I - IN

Cell 23

I INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

	INORGANIC .	ANALYSES DATA	SHEET	
RAL ENGINEE	RING LABS	Contract: Bl	ECH00394_	JX00655SLG
		•		ole ID: 9701369-0
			_	eived: 01/21/97
			Date no	
				
ncentration	Units (ug	/L or mg/kg dry	y weight)	: UG/Li_
CAS No.	Analyte	Concentration	c Q	M
7440-47-3 7439-92-1 7440-02-0	Chromium_ Lead_ Nickel_	4.6 5.7 167	B	
. -	Clarit	y Before:		Texture:
	Clarit	y After:		Artifacts:
	· · · · · · · · · · · · · · · · · · ·			
	Casater): WATES LOW	Case No.: ater): WATER Case No.: ater): WATER Case No. CAS No. Analyte CAS No. Analyte Chromium Chromium Lead Nickel 7440-22-4 Silver Clarit	Case No.: SAS No. ater): WATER): LOW	Date Recommendately. MAISM Concentration Units (ug/L or mg/kg dry weight)

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(Cell 24)

EPA SAMPLE NO.

Lab	Name:	GENERAL_ENGINEERING_LABS_	Contract: BECH00394_	JX00656SLG	
Lab	Code:	Case No.:	SAS No.:	SDG No.: 71390T	

Matrix (soil/water): WATER Lab Sample ID: 9701390-01

Level (low/med): LOW__ Date Received: 01/22/97

% Solids: __0.0

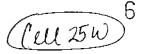
Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	М
7440-43-9 7440-47-3 7439-92-1	Cadmium_ Chromium_ Lead_ Nickel	0.30 46.6 3.5 119	U B B		
	Silver	0.70	ប៊		P-
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Color After:		Clarity	After:	 Artifacts: ·_	
Comments:					
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EPA SAMPLE NO.

Name: GENE	RAL_ENGINEE	RING_LABS_	Contract: B	ECH00394_	JX00657SLG
Lab Code:	Ca.	se No.:	SAS No.	:	SDG No.: 71390T
Matrix (soil/w	ater): WATE	R	7	Lab Samp	le ID: 9701390-02
Level (low/med): LOW	_		Date Rece	eived: 01/22/97
% Solids:	0 . (0			
Co	ncentration	Units (ug,	/L or mg/kg dr	y weight):	: UG/L_
	CAS No.	Analyte	Concentration	C Q	м
	7439-92-1 7440-02-0	Chromium_	0.30 54.0 3.3 221 0.70	B	P P P P P P P P P P P P P P P P P P P
olor Before:		Clarit	y Before:		Texture:
olor After:		Clarit	y After:		Artifacts:
omments:	•				•

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CW 25 E

EPA SAMPLE NO.

Lab Name: GENE	ERAL_ENGINEE	RING_LABS_	Contract: E	EC.	H00394_	0.00038516
Lab Code:	Ca	se No.:	SAS No.	: .		SDG No.: 71390T
Matrix (soil/w	water): WATE	R	,	L	ab Samp	ole ID: 9701390-03
Level (low/med	l): LOW_	- -		Da	ate Rec	ceived: 01/22/97
% Solids:	0.	0				
Ca	ncentration	Units (ug	/L or mg/kg dr	t	weight)	: UG/L_
,	CAS No.	Analyte	Concentration	С	Q	М
	7439-92-1 7440-02-0	Cadmium_Chromium_Lead_Nickel_Silver_	0.30 89.0 2.8 60.0 0.70	B		
Còlor Before:		Clarit	y Before:			Texture:
Color After:		Clarit	y After:			Artifacts:
Comments:	•					
		- 				

FORM I - IN

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26

EPA SAMPLE NO. INORGANIC ANALYSES DATA SHEET JX00659SLG Lab Name: GENERAL_ENGINEERING_LABS_ Contract: BECH00394_ Lab Code: _____ SAS No.: ____ SDG No.: 71451T Lab Sample ID: 9701451-01 Matrix (soil/water): WATER Date Received: 01/24/97 Level (low/med): LOW % Solids: __0.0 Concentration Units (ug/L or mg/kg dry weight): UG/L_ Concentration C Analyte CAS No. P P 0.31 B 7440-43-9 Cadmium 7440-47-3 Chromium 64.6 p^ Lead 4.2 B 7439-92-1 56.3 Nickel 7440-02-0 ០. 70 ប៊ |Silver 7440-22-4 Texture: Clarity Before: ____ Color Before: Artifacts: ____ Clarity After: ____ Color After: Comments:

FORM I - IN

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004 Cell 26E

I . INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

							JX00660SLG	
Lab	Name:	GENERAL_	ENGINEERING	LABS	Contract:	BECH00394_		l

Matrix (soil/water): WATER Lab Sample ID: 9701560-01

Level (low/med): LOW_ Date Received: 01/30/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

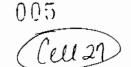
	CAS No.	Analyte	Concentration	c	Q	М
	7440-43-9 7440-47-3	Cadmium_ Chromium	0.30	ਹ		ם ה
	7439-92-1 7440-02-0	Lead	5.2	B		р <u>-</u>
	7440-22-4	Silver	0.70	์		p
				- -		_
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			<u> </u>			
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				_		
				<u> </u>		_
				_		
				_		_
1				-		

	l		
olor Before:		Clarity Before:	Texture:
olor After:		Clarity After:	Artifacts:
omments: .			

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27



EPA SAMPLE NO.

Name CENE				•	
Mame. Grant	RAL_ENGINEE	RING_LABS_	Contract: B	ECH00394_	JX00664SLG
Lab Code:	Ca	se No.:	SAS No.	:	SDG No.: 72036T
Matrix (soil/wa	ater): WATE	R	.•	Lab Samp	ole ID: 9702036-01
Level (low/med)	: LOW_	_		Date Rec	eived: 02/04/97
% Solids:	0.	0			
Con	ncentration	Units (ug	/L or mg/kg dr	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	c Q	M
		Chromium_ Lead	0.30 34.0 2.3 65.8 0.70	B	
Color Before: _		Clarit	y Before:	<u>.</u>	Texture:
Color After:		Clarit	y After:	<u>.</u>	Artifacts:
·Comments:		•			

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1 INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

ab Name: GENE.	RAL_ENGINEE	RING_LABS_	Contract: B	ECH00	394_	JX00567SLG
ab Code:	Ca:	se No.:	SAS No.	:		SDG No.: 722353
Matrix (soil/wa	ater): WATE	R		Lab	Sample	■ ID: 9702235-01
evel (low/med)): LOW_	_		Date	Recei	ived: 02/12/97
Solids:	0.0	0				
Cor	ncentration	Units (ug	/L or mg/kg dr	y wei	.ght):	UG/L_
	CAS No.	Analyte	Concentration	c	Q	1
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Cadmium_Chromium_Lead_Nickel_Silver	0.30 54.0 3.7 185 0.98	B	F	
lor Before:		Clarit	y Before:		Т	exture:
olor After:		Clarit	y After:		A	rtifacts:
mments:		· · · · · · · · · · · · · · · · · · ·				

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(111 29 A)

EPA SAMPLE NO.

L Name: GENE	RAL_ENGINEER	.ING_LABS_	Contract: B	ECH00394_	JX00669SLG
Lab Code:	Cas	e No.:	SAS No.	:	SDG No.: 72235T
Matrix (soil/w	ater): WATER		:	Lab Samp	le ID: 9702235-03
Level (low/med	l): LOW			Date Rec	eived: 02/12/97
% Solids:	0.0				
. Co	ncentration	Units (ug/	L or mg/kg dr	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	c Q	М
	7440-47-3 7439-92-1 7440-02-0	Cadmium_Chromium_Lead_Nickel_Silver_	0.30 49.6 3.7 114 0.70	B	
Color Before:		Clarit	y Before:		Texture:
Color After:		Clarit	y After:		Artifacts:
Comments:					

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(Cell 29B/30B)

EPA SAMPLE NO.

Lab Name: GE	NERAL_ENGINEER	NG_LABS_	Contract: B	ECH00394_	JX00668SLG
	•				SDG No.: 72235T
Matrix (soil	/water): WATER		,	Lab Sampl	e ID: 9702235-02
Level (low/m	ed): LOW			Date Rece	ived: 02/12/97
% Solids:	0.0				
	Concentration U	Jnits (ug,	/L or mg/kg dr	y weight):	UG/L_
	CAS No.	Analyte	Concentration	C Q I	м
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4 S	hromium_ ead ickel	0.30 56.4 2.8 250 0.70	B	
olor Before:		Clarit	y Before:		Cexture:
		Clarit	y After:	P	rtifacts:
olor After:			_		

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I INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

h Name: GFMF	RAI, ENGINEE	RING LABS	Contract: B	ECH00394	JX00665SLG
					SDG No.: 72112T
atrix (soil/w					le ID: 9702112-01
				Date Rece	eived: 02/06/97
evel (low/med	•				
Solids:	0.0 ncentration		/L or mg/kg dry	y weight):	: UG/L_
	1		1	ī ī	M
	CAS No.	Analyte	Concentration	i_	
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Chromium_ Lead	0.30 42.2 2.6 96.5 0.70	ш — —	
lor Before:		Clarit	y Before:		Texture:
lor After:	-	Clarit	y After:		Artifacts:
mments:					

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EPA SAMPLE NO.

RAL_ENGINEE	RING_LABS_	· Contract: B	BECH00394_	JX00662SLG	
Ca	se No.:	SAS No.	:		
ater): WATE	R	•	Lab Sampl	e ID: 9701560-03	
): LOW_	_		Date Rece	ived: 01/30/97	
0.	0				
ncentration	Units (ug	/L or mg/kg dr	y weight):	UG/L_	
CAS No.	Analyte	Concentration	C Q I	M	
7440-43-9 7440-47-3 7439-92-1 7440-02-0	Cadmium_ Chromium_ Lead_ Nickel_	0.30 67.8 2.3 125	ਹ ਭ	p_ p_ p_	•
	Ca ater): WATE 1: LOW	Case No.:	Case No.: SAS No. ater): WATER):	Lab Sampl Low	Case No.: SAS No.: SDG No.: 71560T

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(lel 32)

EPA SAMPLE NO.

a. Tame: GEI	NERAL_ENGINEE	RING LABS	· Contract: B	ECH00394		0661SLG	
			SAS No.			No.: 7156	' 0T
atrix (soil,	/water): WATE	R		Lab Sam	ple ID:	9701560-0	02
evel (low/me	ed): LOW_			Date Re	ceived:	01/30/97	
· Solids:	0	0					
	Concentration	. Units (ug	/L or mg/kg dr	y weight): UG/L		٠
	CAS No.	Analyte	Concentration	C Q	M		
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Chromium_ Lead_ Nickel_	0.30 59.6 2.8 187 0.70	3			
Color Before:		Clarit	y Before:		Textur	re:	
lolor After:		Clarit	y After:		Artifa	icts:	
lomments: .							

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Cell 33)

EPA SAMPLE NO.

Lab	Name:	GENERAL_	_ENGINEERING_LABS_	Contract: BECH00394_	JX00670SLG
i -h	Code	_	Case No.:	SAS No.:	SDG No.: 72294T

Matrix (soil/water): WATER

Lab Sample ID: 9702294-01

Level (low/med): LOW__

Date Received: 02/14/97

% Solids:

__0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

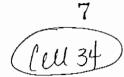
				+	
CAS No.	Analyte	Concentration	c	Q	М
7440-43-9	Cadmium_	0.30	ਹ		<u>P</u> _
7440-47-3 7439-92-1	Chromium_ Lead	59.7	B		P_ P_
7440-02-0 7440-22-4	Nickel Silver	211	B		P_ P_
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Color Before:	· —	Clarity	Before:	.	Texture:	
Color After:		Clarity	After:		Artifacts:	
Comments:	-					•
						

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EPA SAMPLE NO.

				·	
Lab Name: GEN	ERAL_ENGINEE	RING_LABS_	Contract: B	ECH00394_	JX00672SLG
Lab Code:	Ca	se No.:	SAS No.	:	SDG No.: 72402T
Matrix (soil/	water): WATE	R		Lab Sampl	Le ID: 9702402-01
Level (low/med	_WO.1 : (f	<u>.</u>		Date Rece	eived: 02/20/97
& Solids:	0.	0			,
Co	oncentration	Units (ug	/L or mg/kg dr	y weight):	UG/L_
•	CAS No.	Analyte	Concentration	C Q	м
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Chromium_ Lead Nickel	0.40 43.0 1.9 .147 0.50	B	P_ P_ P_ P_ P
olor Before:		Clarit	y Before:		Texture:
olor After:		Clarit	y After:	<u>.</u>	Artifacts:
omments:		·			

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1 INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

Lab Name: GEN	ERAL_ENGINEERING_LABS_	Contract: BECHO	JX00673SLG
	•		SDG No.: 72402T
Matrix (soil/	water): WATER	Lab	Sample ID: 9702402-02
Level (low/me	d): LOW	Dat	e Received: 02/21/97
% Solids:	0.0		·
C	oncentration Units (ug	/L or mg/kg dry we	ight): UG/L_
	CAS No. Analyte	Concentration C	Q M
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4 Silver	0.40 U	P P P P P P P P P P P P P P P P P P P
Color Before:	Clarit	cy Before:	Texture:
Color After:	Clarit	y After:	Artifacts:
Comments:	·		
		·	

ILM03.0 35 Cell 35 B

EPA SAMPLE NO.

		THORGANIC.	WANTIDED DUIN		
Lab Name: GE	NERAL_ENGINEE	RING_LABS_	Contract: B	ECH00394_	JX00674SLG
Lab Code:	Ca	se No.:	SAS No.	:	SDG No.: 72402T
Matrix (soil,	/water): WATE	R		Lab Samp	le ID: 9702402-03
Level (low/me	ed): LOW_	_		Date Rec	eived: 02/21/97
% Solids:	0.0	ס		·	·
C	Concentration	Units (ug	/L or mg/kg dry	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	C Q	М
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Chromium_ Lead_ Nickel_ Silver_	2.4 33.9 0.50	B B U	P
olor Before:	 -	•	y Before:		Texture:
olor After:	. ————	Clarit	y After:		Artifacts:
omments:				-	

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EPA SAMPLE NO.

X00675SLG	

					JX00675SLG
Lab Name: GENE	RAL_ENGINEE	RING_LABS_	Contract: B	ECH00394_	
Lab Code:	Ca	se No.:	SAS No.	:	SDG No.: 72497T
Matrix (soil/w	ater): WATE	R		Lab Sampl	e ID: 9702497-01
Level (low/med): LOW	_		Date Rece	eived: 02/25/97
% Solids:	0.	0			
Cox	ncentration	Units (ug	/L or mg/kg dry	y weight):	UG/L_
	CAS No.	Analyte	Concentration	C Q	м
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Chromium_ Lead Nickel	0.40 58.6 2.5 150 0.59		P_ P_ P_ P_ P_ P_ P_ P_ P_ P_ P_ P_ P_ P
 Color Before:		Clarit	y Before:		Textul:
Color After:		Clarit	y After:		Artifacts:

Comments:

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EPA SAMPLE NO.

Lab Name: GEN	ERAL_ENGINEE	RING_LABS_	. Contract: B	ECH	00394	JX00677SLG	
						SDG No.: 73034	T
Matrix (soil/	water): WATE	er.		La	b Sam	ple ID: 9703034-0	1
Level (low/me	d): LOW_	_		Da	te Red	ceived: 03/04/97	
% Solids:	0.	0				•	
С	oncentration	. Units (ug	/L or mg/kg dr	y w	eight)): UG/L_	
	CAS No.	Analyte	Concentration	c	Q	м	
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Cadmium_Chromium_Lead_Nickel_Silver_	3.3 14.8 64.8 157 10.8	B U		P P P P P P P P P P P P P P P P P P P	
Color Before:		Clarit	y Before:			Texture:	
Color After:		Clarit	y After:			Artifacts:	
Comments:							
					.		

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EPA SAMPLE NO.

Lab Name: GENER Lab Code: Matrix (soil/wal Level (low/med)	_ Ca.			ECH00394_	JX006785LG
Lab Code:	_ Ca.				
·	ter): WATE		SAS No.	:	SDG No.: 73034
Level (low/med)	•	R	,	Lab Sampl	e ID: 9703034-0
	: LOW_	_		Date Rece	eived: 03/04/97
ਰ Solids:	0.0	0			
Cond	centration	Units (ug	/L or mg/kg dr	y weight):	UG/L_
	CAS No.	Analyte	Concentration	c o	M
	7440-47-3 7439-92-1	Cadmium_Chromium_Lead_Nickel_Silver_		<u></u>	P_ P_ P_ P_ P_ P_ P_ P_ P_ P_ P_ P_ P_ P
olor Before: _		Clarit	y Before:	:	Pexture:
olor After: _		Clarit	y After:		Artifacts:
omments:					

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EDV	SAMPLE	NTO
EPA	DAMPLE	NO.

468.	INORGANIC ANALYSES DATA SHEET						FA SAMPLE NO.
	Name: GENERAL_ENGINEERING_LABS_ Contract: BECH00394_						JX00679SLG
Lab Code:	Ca	se No.:	SAS No.	: -	· · · · · · · ·	S	DG No.: 73034T
Matrix (soil/w	water): WATE	R		Lā	ab Samp	le	ID: 9703034-03
Level (low/med	i): LOW_	. –		Da	ate Rec	eiv	ed: 03/05/97
% Solids:	0.	0					
Co	oncentration	Units (ug	/L or mg/kg dr	y w	veight)	: Ŭ	G/L_
		<u> </u>					1
	CAS No.	Analyte	Concentration	C	Q	M	
	7440-43-9		3.3			P_	
	7440-47-3	Chromium_				P_	·
	7439-92-1 7440-02-0	Lead Nickel	64.8 147			P P	
	7440-02-0	Silver	10.8	1 — I		P_	
	7440 22 1						
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Color Before:		Clarit	y Before:			Tex	kture:

Clarity After: _____ Artifacts: ___ Color After: Comments:

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

•	
JX00680SLG	

Lab Name: GE	NERAL ENGINER	RING LABS	Contract: B	ECH00394_	JX00680SLG
					SDG No.: 73034T
Matrix (soil,	/water): WATE	ER .		Lab Samp	ole ID: 9703034-04
Level (low/me	ed): LOW_	_		Date Rec	eived: 03/05/97
% Solids:	0.	0			
	Concentration	Units (ug	/L or mg/kg dr	y weight)	: UG/L_
	CAS No.	Analyte	Concentration	c Q	м
	7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4	Lead		B	P_ P_ P_ P P
Color Before:	Clarity Before:				Texture:
Color After:	<u></u>		Artifacts:		
Comments:					

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EPA SAMPLE NO.

Lab Name: GENERAL_ENGINEERING_LABS_	Lob Name: CENI	DDAT ENCTNEE	DING LARS	Contract: B	ECH00394	JX00681SLG	
Matrix (soil/water): WATER Level (low/med): LOW Date Received: 03/05/97 * Solids:							— I
Date Received: 03/05/97	Lab Code:	Ca	se No.:	SAS No.	:	SDG No.: 73034	T
Concentration Units (ug/L or mg/kg dry weight): UG/L CAS No.	Matrix (soil/v	water): WATE	R		Lab Sam	ple ID: 9703034-0	5
Concentration Units (ug/L or mg/kg dry weight): UG/L_ CAS No.	Level (low/med	i): LOW_	_		Date Red	ceived: 03/05/97	
CAS No.	% Solids:	0.	0				
7440-43-9 7440-47-3 7439-92-1 7440-02-0 7440-22-4 Silver 10.8 U PP P PP P PP P PP P PP P PP P PP P P	Co	ncentration	Units (ug	/L or mg/kg dr	y weight): UG/L_	
7440-47-3 7439-92-1 7440-02-0 7440-02-0 7440-22-4 Silver 10.8 U P P P P P P P P P P P P P P P P P P P	•	CAS No.	Analyte	Concentration	c Q	м	
olor After: Clarity After: Artifacts:		7440-47-3 7439-92-1 7440-02-0	Chromium_ Lead Nickel	57.5 64.8 84.0 10.8		P_ P_ P_	
	color Before:	lor Before: Clarity Before:					
omments:	olor After: Clarity After:					Artifacts:	
	omments:					,	

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